JVC

SERVICE MANUAL

COLOUR TELEVISION

AV-28T5BK/P, AV-28T5BR/P, AV-28T5SK/P, AV-28T5SR/P, AV-28T5SP/P

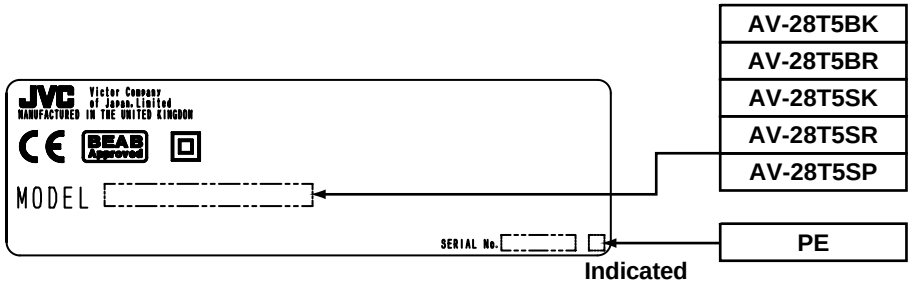
BASIC CHASSIS
JW2

Supplementary

AV-28T5BK/P, AV-28T5BR/P, AV-28T5SK/P, AV-28T5SR/P and AV-28T5SP/P is the models whose production place of pwb ass'y was changed based on AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SR, AV-28T5SP. Therefore, this service manual describes only the items which differ from those of the AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SR and AV-28T5SP service manual.
For details other than those described in this manual, please refer to the AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SR and AV-28T5SP service manual (No.YA261, 2005/3).

HOW TO IDENTIFY MODELS

"PE" is added to the serial No. under at the Rating label.



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No.YA261B
2005/8

DIFFERENCE LIST

USING P.W. BOARD (Page 3-2)

P.W.B ASS'Y Name	AV-28T5BK AV-28T5BR AV-28T5SK AV-28T5SR AV-28T5SP	AV-28T5BK/P AV-28T5BR/P AV-28T5SK/P AV-28T5SR/P AV-28T5SP/P	DESCRIPTION
POWER & DEF PWB	SJW-2012A-S2	LCA10364-09C (SJW-2012A-H3)	Non compatible
CRT SOCKET PWB	SJW-3012A-U2	LCA90245-05B (SJW-3012A-H3)	Compatible
FRONT CONTROL PWB	SJW-8011A-U2	LCA90300-02A (SJW-8011A-H3)	Non compatible
SIDE CONTROL PWB	SJW-8111A-U2	LCA90301-02B (SJW-8111A-H3)	Compatible
AV JACK PWB	SJW0J011A-U2	LCA90248-02C (SJW0J011A-H3)	Compatible

EXPLODED VIEW PARTS LIST (Page 3-3)

⚠	Ref. No.	Part No.		PART NAME	DESCRIPTION
		AV-28T5BK	AV-28T5BK/P		
⚠	26	LC11364-077A-U	LC11364-090A-U	RATING LABEL	
⚠	40	SJW-3012A-U2	LCA90245-05B	CRT SOCKET PWB	
⚠	41	SJW-8011A-U2	LCA90300-02A	FRONT CONTROL PWB	
⚠	42	SJW-2012A-S2	LCA10364-09C	POWER & DEF PWB	
⚠	43	SJW0J011A-U2	LCA90248-02C	AV JACK PWB	
⚠	45	SJW-8111A-U2	LCA90301-02B	SIDE CONTROL PWB	

⚠	Ref. No.	Part No.		PART NAME	DESCRIPTION
		AV-28T5BR	AV-28T5BR/P		
⚠	26	LC11364-078A-U	LC11364-088A-U	RATING LABEL	
⚠	40	SJW-3012A-U2	LCA90245-05B	CRT SOCKET PWB	
⚠	41	SJW-8011A-U2	LCA90300-02A	FRONT CONTROL PWB	
⚠	42	SJW-2012A-S2	LCA10364-09C	POWER & DEF PWB	
⚠	43	SJW0J011A-U2	LCA90248-02C	AV JACK PWB	
⚠	45	SJW-8111A-U2	LCA90301-02B	SIDE CONTROL PWB	

⚠	Ref. No.	Part No.		PART NAME	DESCRIPTION
		AV-28T5SK	AV-28T5SK/P		
⚠	26	LC11364-075A-U	LC11364-089A-U	RATING LABEL	
⚠	40	SJW-3012A-U2	LCA90245-05B	CRT SOCKET PWB	
⚠	41	SJW-8011A-U2	LCA90300-02A	FRONT CONTROL PWB	
⚠	42	SJW-2012A-S2	LCA10364-09C	POWER & DEF PWB	
⚠	43	SJW0J011A-U2	LCA90248-02C	AV JACK PWB	
⚠	45	SJW-8111A-U2	LCA90301-02B	SIDE CONTROL PWB	

⚠	Ref. No.	Part No.		PART NAME	DESCRIPTION
		AV-28T5SR	AV-28T5SR/P		
⚠	26	LC11364-076A-U	LC11364-087A-U	RATING LABEL	
⚠	40	SJW-3012A-U2	LCA90245-05B	CRT SOCKET PWB	
⚠	41	SJW-8011A-U2	LCA90300-02A	FRONT CONTROL PWB	
⚠	42	SJW-2012A-S2	LCA10364-09C	POWER & DEF PWB	
⚠	43	SJW0J011A-U2	LCA90248-02C	AV JACK PWB	
⚠	45	SJW-8111A-U2	LCA90301-02B	SIDE CONTROL PWB	

⚠	Ref. No.	Part No.		PART NAME	DESCRIPTION
		AV-28T5SP	AV-28T5SP/P		
⚠	26	LC12098-003A-U	LC12098-009A-U	RATING LABEL	
⚠	40	SJW-3012A-U2	LCA90245-05B	CRT SOCKET PWB	
⚠	41	SJW-8011A-U2	LCA90300-02A	FRONT CONTROL PWB	
⚠	42	SJW-2012A-S2	LCA10364-09C	POWER & DEF PWB	
⚠	43	SJW0J011A-U2	LCA90248-02C	AV JACK PWB	
⚠	45	SJW-8111A-U2	LCA90301-02B	SIDE CONTROL PWB	

PRINTED WIRING BOARD PARTS LIST

POWER & DEF P.W. BOARD ASS'Y (Page 3-7)

⚠	Ref. No.	Part No.		PART NAME	DESCRIPTION
		AV-28T5BK AV-28T5BR AV-28T5SK AV-28T5SR AV-28T5SP	AV-28T5BK/P AV-28T5BR/P AV-28T5SK/P AV-28T5SR/P AV-28T5SP/P		
		SJW-2012A-U2	LCA10364-09C		
	Q571	DTC124ESA-T	---	DIGI TRANSISTOR	Delete
	Q572	KTC3199/YG/-T	---	TRANSISTOR	Delete
	Q573	RDN050N20	---	POWER MOS FET	Delete
	Q574	RDN050N20	---	POWER MOS FET	Delete
	D909	---	AU01Z-T2	FR DIODE	Addition
	D910	---	AU01Z-T2	FR DIODE	Addition
	D955	FSF05A20	FMX-G12S	SI DIODE	
	C524	QFM72DK-104	---	M CAPACITOR	Delete
	C526	QFZ0197-254	QFZ0197-274	MPP CAPACITOR	0.27uF 250V J
	C529	QFM72DK-393	QFN32DK-393	M CAPACITOR	0.039uF 200V K
	C572	QFZ0197-124	---	MPP CAPACITOR	Delete
	C912	QFLC1HJ-681Z	QFLC1HJ-102Z	M CAPACITOR	1000pF 50V J
	C913	QDC31HJ-820Z	---	C CAPACITOR	Delete
	R467	QRL039J-120	QRL039J-270	OMF RESISTOR	27Ω 3W J
	R571	QRE141J-103Y	---	C RESISTOR	Delete
	R572	QRE141J-222Y	---	C RESISTOR	Delete
	R573	QRE141J-183Y	---	C RESISTOR	Delete
	R574	QRE121J-124Y	---	C RESISTOR	Delete
	R575	QRE141J-123Y	---	C RESISTOR	Delete
	R576	QRE121J-124Y	---	C RESISTOR	Delete
	R577	QRE141J-103Y	---	C RESISTOR	Delete

⚠	Ref. No.	Part No.		PART NAME	DESCRIPTION
		AV-28T5BK AV-28T5BR AV-28T5SK AV-28T5SR AV-28T5SP	AV-28T5BK/P AV-28T5BR/P AV-28T5SK/P AV-28T5SR/P AV-28T5SP/P		
		SJW-2012A-U2	LCA10364-09C		
	R919	---	QRE141J-182Y	C RESISTOR	1.8kΩ 1/4W J
	CN0HV	CHC802T-05N-J	CHC802T-05N-T	LV CONNECTOR	
	K902	QQR0621-002Z	---	FERRITE BEADS	Delete
	PC571	PC123Y22FZ	---	PHOTO COUPLER	Delete
	TH901	CEKP002-003	QAD0121-9R0	P THERMISTOR	9Ω

CRT SOCKET P.W. BOARD ASS'Y

The number of PWB have been changed. However, there is no change in component parts.

FRONT CONTROL P.W. BOARD ASS'Y (Page 3-9)

⚠	Ref. No.	Part No.		PART NAME	DESCRIPTION
		AV-28T5BK AV-28T5BR AV-28T5SK AV-28T5SR AV-28T5SP	AV-28T5BK/P AV-28T5BR/P AV-28T5SK/P AV-28T5SR/P AV-28T5SP/P		
		SJW-8011A-U2	LCA90300-02A		
	D8851	---	MA8030/H/-X	Z DIODE	Addition
	R8852	QRE121J-470Y	QRE121J-101Y	C RESISTOR	100Ω 1/2W J

SIDE CONTROL P.W. BOARD ASS'Y

The number of PWB have been changed. However, there is no change in component parts.

AV JACK P.W. BOARD ASS'Y

The number of PWB have been changed. However, there is no change in component parts.

SECTION 1
PRECAUTION

Please refer to "AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SR, AV-28T5SP (No.YA261)" about this section.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

Please refer to "AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SR, AV-28T5SP (No.YA261)" about this section.

SECTION 3
DISASSEMBLY

Please refer to "AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SR, AV-28T5SP (No.YA261)" about this section.

SECTION 4
ADJUSTMENT

Please refer to "AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SR, AV-28T5SP (No.YA261)" about this section.

SECTION 5
TROUBLESHOOTING

Please refer to "AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SR, AV-28T5SP (No.YA261)" about this section.

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SERVICE MANUAL

COLOUR TELEVISION

AV-28T5BK, AV-28T5BR, AV-28T5SK, AV-28T5SP, AV-28T5SR

BASIC CHASSIS
JW2

T-V LINK

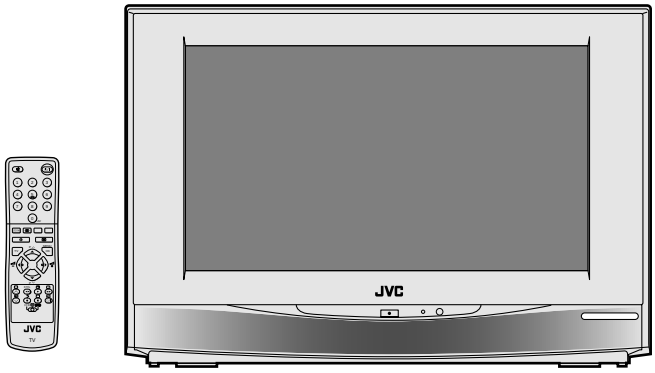

TABLE OF CONTENTS

1 PRECAUTION 1-3
2 SPECIFIC SERVICE INSTRUCTIONS 1-5
3 DISASSEMBLY 1-7
4 ADJUSTMENT 1-13
5 TROUBLE SHOOTING 1-27

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No.YA261
2005/3

SPECIFICATION

Items		Contents		
		AV-28T5SK AV-28T5BK	AV-28T5SR AV-28T5BR	AV-28T5SP
Dimensions (W × H × D)		76.2cm × 52.8cm × 49.2cm		
Mass		38.0kg		
TV RF System		CCIR (I)		CCIR (B/G, I, L)
Colour System		PAL NTSC3.58 / NTSC4.43 (Only EXT mode)		PAL SECAM NTSC3.58 / NTSC4.43 (Only EXT mode)
Stereo System		NICAM (I)		A2 (B/G) / NICAM (B/G, I, L)
Receiving Frequency	VHF	---	47MHz - 470MHz	
	UHF	470MHz - 862MHz		
	French CATV	---		116MHz - 172MHz 220MHz - 469MHz
Intermediate Frequency	VIF	38.9MHz (I)		38.9MHz (B/G, I, L) 33.9MHz (L')
	SIF	32.9MHz (6.0MHz :I)		33.4MHz (5.5MHz :B/G) 32.9MHz (6.0MHz:I) 32.4MHz (6.5MHz :L)
Colour Sub Carrier Frequency	PAL	4.43MHz		
	SECAM	---		4.40625MHz / 4.25MHz
	NTSC	3.58MHz / 4.43MHz		
Teletext System		FLOF (Fastext) WST(Standard system)		TOP (German system) FLOF (Fastext) WST (Standard system)
Power Input		AC220V - AC240V, 50Hz		
Power Consumption		110W, Standby : 2.7W		
Picture Tube		Visible size : 66cm [measured diagonally] (H : 58.3cm × V : 33.0cm)		
High Voltage		31.0kV (+1kV / -1.5kV) (at zero beam current)		
Speaker		13cm × 6.5cm oval type × 2		
Audio Power Output		10W + 10W		
Aerial Input Terminal		75Ω unbalanced, coaxial		
EXT-1 / EXT-2 / EXT-3 (Input / Output)		21-pin Euro connector (SCART socket × 3)		
EXT-4 (Input)	Video	1V(p-p) positive, negative sync provided, 75Ω, RCA pin jack × 1		
	Audio	500mV(rms) (-4dBs), high impedance, RCA pin jack × 2		
Headphone Jack		Stereo mini jack (Ø3.5mm × 1)		
Remote Control Unit		RM-C1502 (AA/R6 dry cell battery × 2) [AV-28T5SK, AV-28T5SR, AV-28T5SP] RM-C1502B (AA/R6 dry cell battery × 2) [AV-28T5BK, AV-28T5BR]		

Design & specifications are subject to change without notice.

SECTION 1
PRECAUTION

1.1 SAFETY PRECAUTIONS [EXCEPT FOR UK]

(1) The design of this product contains special hardware, many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the products should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of Service manual. **Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts list in Service manual**. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of Service manual may cause shock, fire, or other hazards.

(4) **Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED (NEUTRAL) : (⏚) side GND and EARTH : (⏚) side GND.
Don't short between the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND and never measure the LIVE side GND and ISOLATED (NEUTRAL) side GND or EARTH side GND at the same time with a measuring apparatus (oscilloscope etc.). If above note will not be kept, a fuse or any parts will be broken.

(5) If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See B1 POWER SUPPLY check).

(6) The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.

(7) Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.

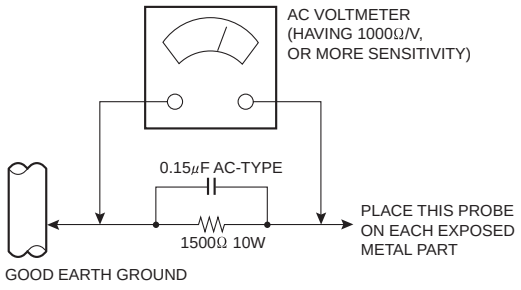
(8) When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.

(9) **Isolation Check (Safety for Electrical Shock Hazard)**
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screw heads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

a) **Dielectric Strength Test**
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second. (. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)
This method of test requires a test equipment not generally found in the service trade.

b) **Leakage Current Check**
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).

Alternate Check Method
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000Ω per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



1.2 SAFETY PRECAUTIONS [FOR UK]

(1) The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.

(2) Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.

(3) Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessary be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may cause shock, fire, or other hazards.

(4) The leads in the products are routed and dressed with ties, clamps, tubing's, barriers and the like to be separated from live parts, high temperature parts, moving parts and / or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

WARNING

(1) The equipment has been designed and manufactured to meet international safety standards.
(2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
(3) Repairs must be made in accordance with the relevant safety standards.
(4) It is essential that safety critical components are replaced by approved parts.
(5) If mains voltage selector is provided, check setting for local voltage.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

2.1 FEATURES

ZOOM

This function can change the screen size according to the picture aspect ratio.

T-V LINK

When you have a T-V LINK compatible VCR connected to the EXT-2 Terminal on the TV,it is easier to set up the VCR and to view videos.

PICTURE MODE

This function can adjust the picture settings automatically.

HYPER SOUND

You can enjoy sounds with a wider ambience.

2.2 MAIN DIFFERENCE LIST

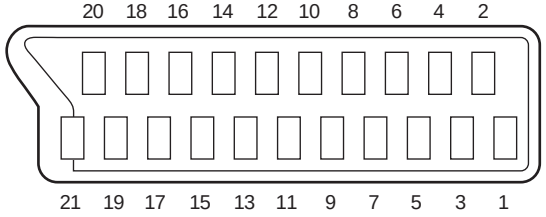
Item	AV-28T5SP	AV-28T5SK	AV-28T5SR	AV-28T5BR	AV-28T5BK
CABINET COLOUR	Silver	←	←	Black	←
POWER CORD	EU 2-pin type	UK 3-pin type	←	←	←
TELETEXT	FLOF, WST, TOP	FLOF, WST	←	←	←
PICTURE & TEXT	YES	NO	NO	NO	NO
STAND ASSY	NO	YES	←	←	←
REMOTE CONTROL UNIT	RM-C1502	←	←	RM-C1502B	←
MAIN PWB	SJW-1012A-U2	SJW-1912A-U2	SJW-1012A-U2	←	SJW-1912A-U2

2.3 21-PIN EURO CONNECTOR (SCART) : EXT-1/EXT-2/EXT-3

Pin No.	Signal designation	Matching value	EXT-1	EXT-2	EXT-3
1	AUDIO R output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)	Used (LINE OUT)	Not used
2	AUDIO R input	500mV(rms) (Nominal), High impedance	Used (R1)	Used (R2)	Used (R3)
3	AUDIO L output	500mV(rms) (Nominal), Low impedance	Used (TV OUT)	Used (LINE OUT)	Not used
4	AUDIO GND		Used	Used	Used
5	GND (B)		Used	Used	Used
6	AUDIO L input	500mV(rms) (Nominal), High impedance	Used (L1)	Used (L2)	Used (L3)
7	B input	$700mV_{(B-W)}$, 75Ω	Used	Used	Not used
8	FUNCTION SW (SLOW SW)	Low : 0V-3V High : 8V-12V, High impedance	Used	Used	Used
9	GND (G)		Used	Used	Used
10	SCL / T-V LINK		Not used	Used (SCL2 / TV-LINK)	Not used
11	G input	$700mV_{(B-W)}$, 75Ω	Used	Used	Not used
12	SDA		Not used	Used (SDA2)	Not used
13	GND (R)		Used	Used	Used
14	GND (YS)		Used	Not used	Not used
15	R / C input	R : $700mV_{(B-W)}$, 75Ω C : $300mV_{(P-P)}$, 75Ω	Used (R)	Used (C2/R)	Used (C3)
16	Ys input (FAST SW)	Low : 0V-0.4V, High : 1V-3V, 75Ω	Used	Used	Not used
17	GND (VIDEO output)		Used	Used	Used
18	GND (VIDEO input)		Used	Used	Used
19	VIDEO output	$1V_{(P-P)}$ (Negative sync), 75Ω	Used (TV OUT)	Used (LINE OUT)	Not used
20	VIDEO / Y input	$1V_{(P-P)}$ (Negative sync), 75Ω	Used	Used	Used
21	COMMON GND		Used	Used	Used

(P-P= Peak to Peak, B-W= Blanking to white peak)

[Pin assignment]



2.4 TECHNINAL INFORMATION

2.4.1 MAIN MI-COM (CPU) PIN FUNCTION

Pin No.	Pin name	I/O	Function	Pin No.	Pin name	I/O	Function
1	VssP2	--	GND	65	SVM	O	Scan velocity modulation
2	VssC4	--	GND	66	FbiSo	I	H pulse (Flyback pulse)
3	V1.8C4	I	1.8V	67	Hout	O	H drive
4	V3.3A3	I	3.3V	68	VssComb	--	GND
5	VrefP_Sdac	I	3.3V	69	V5Comb	I	5V for comb filter
6	VrefN_Sdac	--	GND	70	Vin/R2/Pr	I	EXT-1 R-Y
7	VrefP_Sdac	I	3.3V	71	Uin/B2/Pb	I	EXT-1 B-Y
8	VrefN_Sdac	--	GND	72	Yin/G2/Y	I	EXT-1 Y
9	VrefP_Sdac	I	3.3V	73	Ysync	I	Y for SyncSep
10	XtalIn	I	System clock(4MHz)	74	Yout	O	Y(for 73pin)
11	XtalOut	O	System clock(4MHz)	75	Uout/INSSW2	I	Ys(for EXT-1 Y/R-Y/B-Y insertion)
12	VssA1	--	GND	76	Vout/Swo1	--	Not used
13	Vguard	I	CRT NECK protection	77	INSSW3	I	Ys(for EXT-2 Y/R-Y/B-Y insertion)
14	DecDig	--	1.8V	78	R3/Pr	I	EXT-2 R-Y
15	V5P1	I	5V	79	G3/Y	I	EXT-2 Y
16	Phi2	--	Not used	80	B3/Pb	I	EXT-2 B-Y
17	Phi1	--	Not used	81	Gnd3	--	GND
18	Gnd1	--	GND	82	V5P3	I	5V
19	SecPll	--	Not used	83	BCL	I	Auto Beam / contrast
20	Dec8G	--	Not used	84	BLKIN	I	Black current input (For Auto white balance)
21	Ewd/Avl	O	Parabola wave	85	Rout	O	Red (for CRT)
22	Vdb	O	V. Drive(-)	86	Gout	O	Green (for CRT)
23	Vda	O	V. Drive(+)(For side pin)	87	Bout	O	Blue (for CRT)
24	Vif1	I	IF	88	V3.3A1	I	3.3V
25	Vif2	I	IF	89	RefAdN	--	Not used
26	Vsc	--	Not used	90	V3.3RefAdP	I	3.3V
27	Iref	--	Not used	91	RefAd	--	Not used
28	GndIF	--	GND	92	GndA	--	GND
29	Sif1	I	SIF	93	V1.8A	I	1.8V
30	Sif2	I	SIF	94	V3.3A2	I	3.3V
31	Agc	O	AGC	95	VssAD	--	GND
32	EHT	I	HV change control	96	V1.8ADC	I	1.8V
33	Ssif/RefIn/Avl/RefOut	O	L'/Other SW [L':H]	97	REMOCON	I	Remote control
34	AudoIn5L	I	Not used	98	P10/Int1	I	AV_LINK control
35	AudioIn5R	I	Not used	99	P11/TO	O	AV_LINK control
36	AudOutSL	O	Audio (Left)	100	V1.8C2	I	1.8V
37	AudOutSR	O	Audio (Right)	101	VssC2	--	GND
38	DecsDem	--	Not used	102	P04/I2SWs	--	Not used
39	QssO/AmO/AudeEm	--	Not used	103	P03/I2SClk	--	Not used
40	Gnd2	--	GND	104	P02/I2SDo2	--	Not used
41	PIIIf	--	Not used	105	P01/I2SDo1	--	Not used
42	SifAgc	--	Not used	106	HP_DET	I	Head phone connection detection [Connect : L]
43	IfVo/FmRo/DvbO	O	Composite video detect	107	P13/T1	O	Main power control [ON : H]
44	FmRo/DvbO	--	Not used	108	SCL1	O	I2C bus (clock) for AV SW, TUNER, VOLUME
45	V8AudioSwitches	I	8V	109	SDA1	I/O	I2C bus (data) for AV SW, TUNER, VOLUME
46	AgcSsif	--	Not used	110	V3.3P	I	3.3V
47	V5P2	I	5V	111	P20/TPwm	O	ROTATION
48	SVO/IfVo/Cvbsl	--	Not used	112	P21/Pwm0	O	S-CORRECTION CONTROL(PANORAMIC)
49	Audio4InL	--	Not used	113	P22/Pwm1	O	Audio muting [Muting : L]
50	Audio4InR	--	Not used	114	P23/Pwm2	--	Not used
51	Y4/Cvbs4	I	Composite video /Y	115	Protect	I	Protection detection for Low B short [Detect : H]
52	C4	I	Chroma	116	P31/Adc1	O	Lighting for POWER LED [ON : Soft RED]
53	Audio2InL	--	Not used	117	V1.8C1	I	1.8V
54	Audio2InR	--	Not used	118	DecV1V8	I	1.8V
55	Cvbs2/Y	--	Not used	119	Key	I	Key scan front control
56	Audio3InL	--	Not used	120	AGC	I	AGC
57	Audio3InR	--	Not used	121	VssC1+P1	--	GND
58	Y3/Cvbs	--	Not used	122	P24/PW3	--	Not used
59	C3	--	Not used	123	P25/PWM4	--	Not used
60	AudOutLsL	--	Not used	124	V1.8C3	I	1.8V
61	AudOutLsR	--	Not used	125	VssC3	--	GND
62	AudOutHpL	--	Not used	126	Power DET	I	Main power detection [ON:H]
63	AudOutHpR	--	Not used	127	P14/RX	I/O	I2C bus (data) for generally
64	CVBSO/PIP	--	Not used	128	P15/TX	O	I2C bus (clock) for generally

SECTION 3
DISASSEMBLY

3.1 DISASSEMBLY PROCEDURE

3.1.1 REMOVING THE REAR COVER

(1) Unplug the power cord.
(2) Remove the 13 screws **[A]**, then withdraw the REAR COVER toward you.

3.1.2 REMOVING THE SIDE CONTROL JACK ASS'Y

- Remove the REAR COVER.
  (1) Remove the 1 screw **[B]**.
  (2) Slightly shift the SIDE CONTROL JACK ASS'Y to rear side and remove the 1 claws under the SIDE CONTROL JACK ASS'Y.

3.1.3 REMOVING THE SIDE CONTROL PWB

- Remove the REAR COVER.
- Remove the SIDE CONTROL JACK ASSY.
  (1) Remove the 2 screws **[C]**.
  (2) Remove the 2 claws from back side of the SIDE CONTRL JACK ASS'Y, then pull out the SIDE CONTROL PWB.

3.1.4 REMOVING THE CHASSIS BASE

- Remove the REAR COVER.
  (1) Slightly raise the both sides of the chassis by hand and remove the 2 claws under the both sides of the CHASSI S BASE from the front cabinet.
  (2) Withdraw the CHASSIS backward.
  (If necessary, take off the wire clamp, connectors etc.)

3.1.5 REMOVING THE AV TERMINAL BOARD

- Remove the REAR COVER.
  (1) Remove the 2 screws **[D]**.
  (2) Remove the 2 claws under the CHASSIS, then remove the AV TERMINAL BOARD.

3.1.6 REMOVING THE SPEAKER

- Remove the REAR COVER.
- Remove the CHASSIS BASE.
  (1) Remove the 4 screws **[E]**, then remove the SPEAKER.
  (2) Follow the same steps when removing the other hand MAIN SPEAKER.

3.1.7 CHECKING THE PW BOARD

- To check the back side of the PW Board.
  (1) Pull out the CHASSIS BASE. (Refer to REMOVING THE CHASSIS BASE).
  (2) Erect the CHASSIS BASE vertically with the HVT side facing up so that you can easily check the back side of the PW board.

CAUTION:

- When erecting the CHASSIS BASE, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PWB.

3.1.8 WIRE CLAMPING AND CABLE TYING

(1) Be sure to clamp the wire.
(2) Never remove the cable tie used for tying the wires together. Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

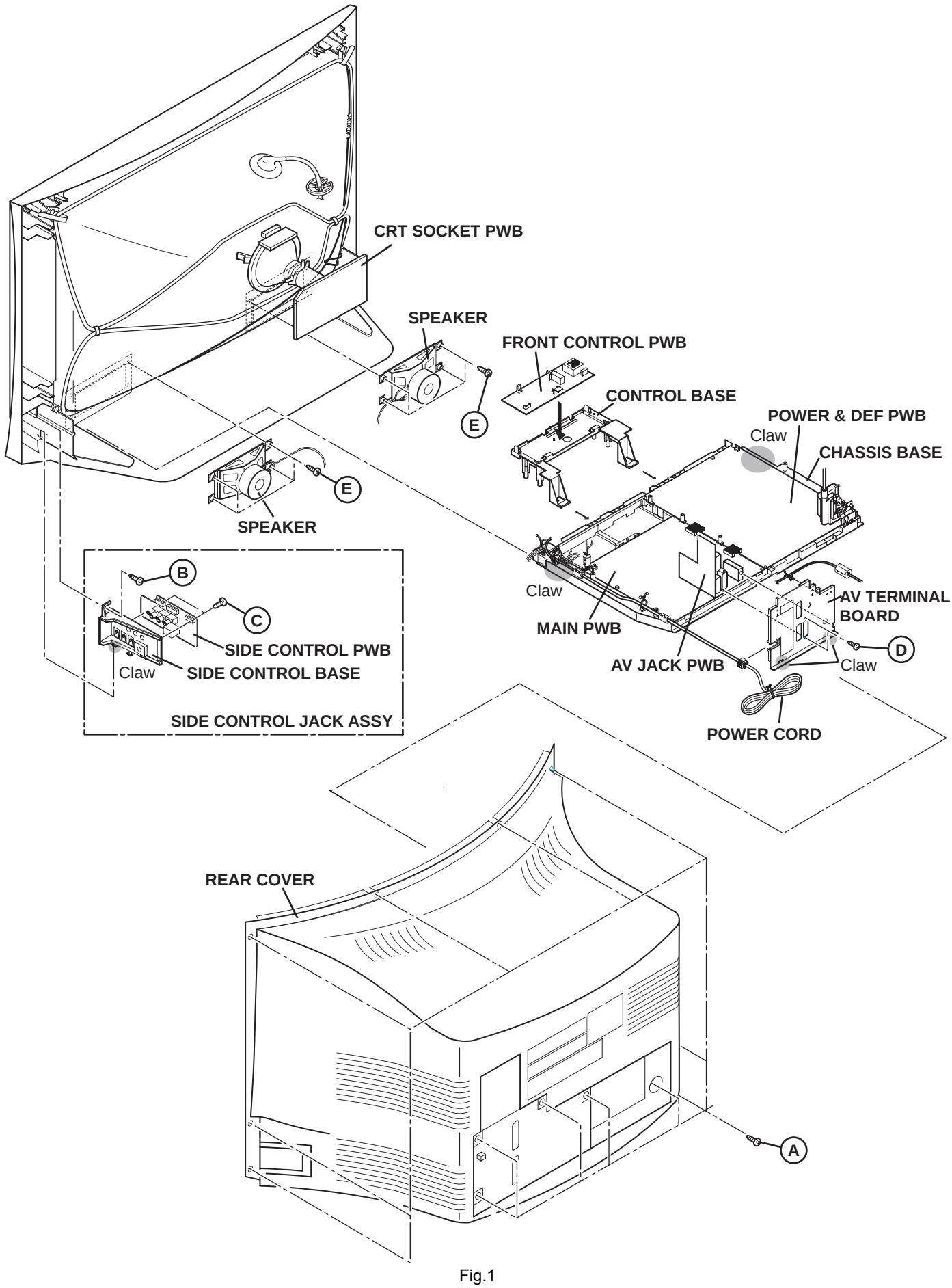

CRT SOCKET PWB
SPEAKER
FRONT CONTROL PWB
CONTROL BASE
POWER & DEF PWB
Claw
CHASSIS BASE
E
E
SPEAKER
B
C
SIDE CONTROL PWB
Claw
SIDE CONTROL BASE
SIDE CONTROL JACK ASSY
Claw
AV TERMINAL BOARD
MAIN PWB
AV JACK PWB
D
Claw
POWER CORD
REAR COVER
A

Fig.1

3.2 MEMORY IC REPLACEMENT

- This model uses the memory IC.
- This memory IC stores data for proper operation of the video and drive circuits.
- When replacing, be sure to use an IC containing this (initial value) data.

3.2.1 MEMORY IC REPLACEMENT PROCEDURE

1. Power off
Switch off the power and disconnect the power plug from the AC outlet.

2. Replace the memory IC
Be sure to use the memory IC written with the initial setting values.

3. Power on
Connect the power plug to the AC outlet and switch on the power.

4. System constant check and setting
* It must not adjust without signal.
(1) Press the **[INFORMATION]** key and the **[MUTING]** key of the REMOTE CONTROL UNIT simultaneously.
(2) The SERVICE MODE screen of Fig. 1 will be displayed.
(3) While the SERVICE MODE is displayed, press the **[INFORMATION]** key and **[MUTING]** key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed.
(4) Refer to the "SYSTEM CONSTANT SETTING", and check the setting items. Where these differ, select the addres with the **[FUNCTION ▲/▼]** key and adjust it with the **[FUNCTION ◀ / ▶]** keys. (The letter of the selected item is displayed in yellow.)
(5) Setup will become effective if the main power is shut off.

5. Receiving channel setting
Refer to the OPERATING INSTRUCTIONS and set the receive channels (Channels Preset) as described.

6. User settings
Check the user setting items according to the given in page later. Where these do not agree, refer to the OPERATING INSTRUCTIONS and set the items as described.

7. SERVICE MODE setting
Verify what to set in the SERVICE MODE, and set whatever is necessary (Fig.1). Refer to the SERVICE ADJUSTMENT for setting.

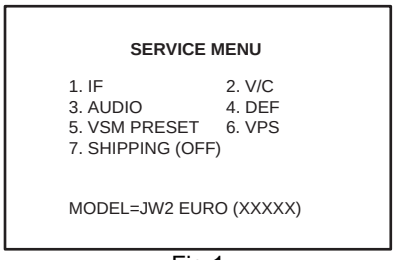
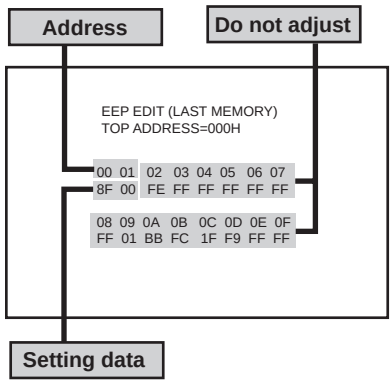
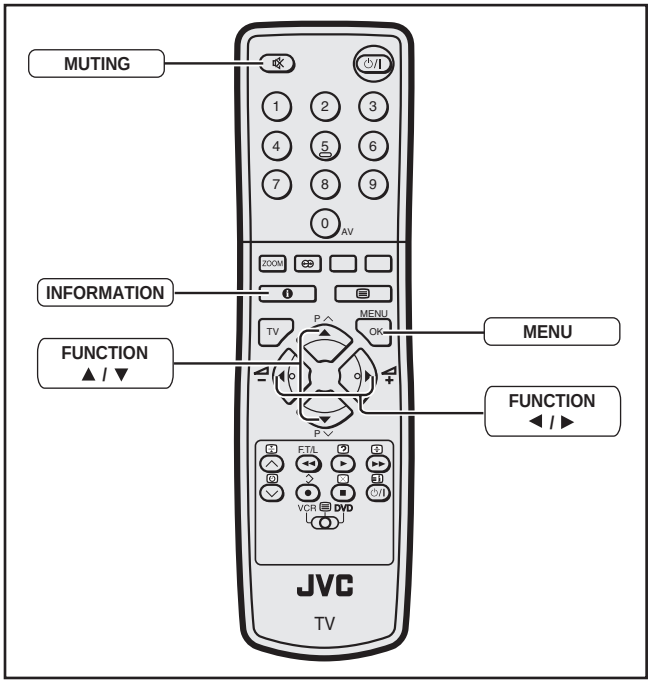


Fig.1


Address
Do not adjust
EEP EDIT (LAST MEMORY)
TOP ADDRESS=000H
00 01 02 03 04 05 06 07
8F 00 FE FF FF FF FF FF
08 09 0A 0B 0C 0D 0E 0F
FF 01 BB FC 1F F9 FF FF
Setting data
Fig.2



3.2.2 SYSTEM CONSTANT SETTING

Address	Setting data				
	AV-28T5SK	AV-28T5SP	AV-28T5SR	AV-28T5BR	AV-28T5BK
00	A7	EF	E7	E7	A7
01	00	02	01	01	00

3.2.3 SETTINGS OF FACTORY SHIPMENT

3.2.3.1 BUTTON OPERATION

Setting item	Setting position
POWER	Off
CHANNEL	PR1
VOLUME	10

3.2.3.2 REMOTE CONTROL DIRECT OPERATION

Setting item	Setting position
CHANNEL	PR1
VOLUME	10
ZOOM	PANORAMIC
HYPER SOUND	OFF

3.2.3.3 REMOTE CONTROL MENU OPERATION

(1) PICTURE

Setting item		Setting position
PICTURE MODE		STANDARD
COLOUR TEMP.		NORMAL
FEATURES		
AUTO VNR		AUTO
COLOUR SYSTEM	TV	According to preset CH
	EXT	AUTO
4:3 AUTO ASPECT		PANORAMIC

(2) SOUND

Setting item	Setting position
STEREO / I•II	Stereo sound
BASS	-2
TREBLE	+2
BALANCE	Centre
HYPER SOUND	OFF

(3) FEATURES

Setting item	Setting position
SLEEP TIMER	OFF
BLUE BACK	ON
CHILD LOCK	OFF

(4) SET UP

Setting item		Setting position
AUTO PROGRAM		TV channel automatically set
EDIT/MANUAL		PRESET CH only
		The others : BLANK
LANGUAGE		ENGLISH
DECODER (EXT-2)		OFF
EXT SETTING	ID	BLANK
	S-IN	BLANK
	DUBBING	EXT-1 → EXT-2

(5) VSM PRESET TABLE

Item	Variable range	Setting value					
		PICTURE MODE			COLOUR TEMP.		
		BRIGHT	STANDARD	SOFT	COOL	NORMAL	WARM
1.BRIGHT	-16 - +16	0	0	0	---	---	---
2.CONT	-16 - +16	+12	+10	+2	---	---	---
3.COLOUR	-16 - +16	+6	0	-2	---	---	---
4.SHARP	-16 - +16	0	0	-2	---	---	---
5.HUE	-16 - +16	0	0	0	---	---	---
1.R DRIVE	-63 - +63	---	---	---	-7	0	+5
2.G DRIVE	-63 - +63	---	---	---	0	0	0
3.B DRIVE	-63 - +63	---	---	---	+7	0	-5

3.2.4 SERVICE MODE SETING ITEMS

Setting item	Setting value	Setting item	Setting value
1. IF	1. VCO 2. DELAY POINT	**4. DEF**	1. V-SHIFT 2. V-SLOPE 3. V-SIZE 4. H-CENT 5. H-SIZE 6. TRAPEZ 7. EW-PIN 8. COR-UP 9. COR-LO 10. ANGLE 11. BOW 12. V.S-CR 13. V.LIN
2. V/C	1. SCREEN 2. CUTOFF R / G 3. WDR R / G / B 4. BRIGHT 5. CONT. 6. COLOUR 7. HUE 8. BLACK OFFSET B-Y 9. SHARP 10. Y DELAY 11. TINT DVD 12. RGB BLK	**5. VSM PRESET**	**BRIGHT/SOFT/STANDARD** 1. BRIGHT 2. CONT. 3. COLOUR 4. SHARP 5. HUE **COOL/WARM/NORMAL** 1. R DRIVE 2. G DRIVE 3. B DRIVE
3. AUDIO **[Do not adjust]**	1. DCX0 ADJ. 2. NICAM LOWER ERRLIM 3. NICAM UPPER ERRLIM 4. A2 ID THR	**6. VPS** **[Do not adjust]**	VPS PDC WSS SN
		7.SHIPPING (OFF) **[Do not adjust]**	---

3.3 REPLACEMENT OF CHIP COMPONENT

3.3.1 CAUTIONS

(1) Avoid heating for more than 3 seconds.
(2) Do not rub the electrodes and the resist parts of the pattern.
(3) When removing a chip part, melt the solder adequately.
(4) Do not reuse a chip part after removing it.

3.3.2 SOLDERING IRON

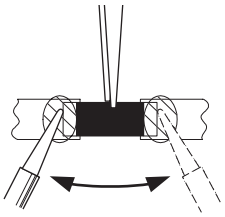
(1) Use a high insulation soldering iron with a thin pointed end of it.
(2) A 30w soldering iron is recommended for easily removing parts.

3.3.3 REPLACEMENT STEPS

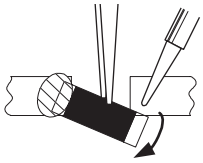
1. How to remove Chip parts

[Resistors, capacitors, etc.]

(1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

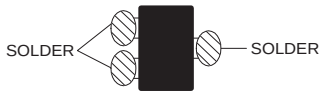


(2) Shift with the tweezers and remove the chip part.

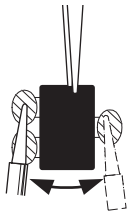


[Transistors, diodes, variable resistors, etc.]

(1) Apply extra solder to each lead.



(2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.



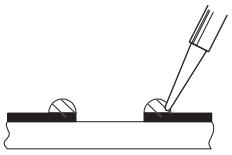
NOTE :

After removing the part, remove remaining solder from the pattern.

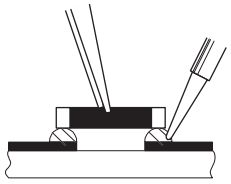
2. How to install Chip parts

[Resistors, capacitors, etc.]

(1) Apply solder to the pattern as indicated in the figure.

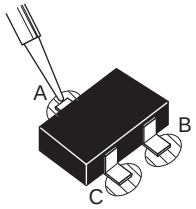


(2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

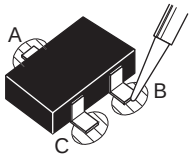


[Transistors, diodes, variable resistors, etc.]

(1) Apply solder to the pattern as indicated in the figure.
(2) Grasp the chip part with tweezers and place it on the solder.
(3) First solder lead **A** as indicated in the figure.



(4) Then solder leads **B** and **C**.



SECTION 4
ADJUSTMENT

4.1 ADJUSTMENT PREPARATION

(1) **There are 2 ways of adjusting this TV : One is with the REMOTE CONTROL UNIT and the other is the conventional method using adjustment parts and components.**
(2) **The adjustment using the REMOTE CONTROL UNIT is made on the basis of the initial setting values. The setting values which adjust the screen to the optimum condition can be different from the initial setting values.**
(3) Make sure that connection is correctly made AC to AC power source.
(4) Turn on the power of the TV and measuring instruments for warming up for at least 30 minutes before starting adjustments.
(5) If the receive or input signal is not specified, use the most appropriate signal for adjustment.
(6) Never touch the parts (such as variable resistors, transformers and condensers) not shown in the adjustment items of this service adjustment.

4.2 PRESET SETTING BEFORE ADJUSTMENT

Unless otherwise specified in the adjustment items, preset the following functions with the REMOTE CONTROL UNIT.

Item	Preset value
PICTURE MODE	STANDARD
COLOUR TEMP.	NORMAL
BASS / TREBLE / BALANCE	Centre
ZOOM	FULL
SLEEP TIMER	OFF

4.3 MEASURING INSTRUMENT AND FIXTURES

(1) DC voltmeter (or digital voltmeter)
(2) Oscilloscope
(3) Signal generator
(Pattern generator : PAL / SECAM / NTSC)
(4) Remote control unit

4.4 ADJUSTMENT ITEMS

■ CHECK ITEM
- B1 VOLTAGE check
- HIGH VOLTAGE check
- IF VCO check

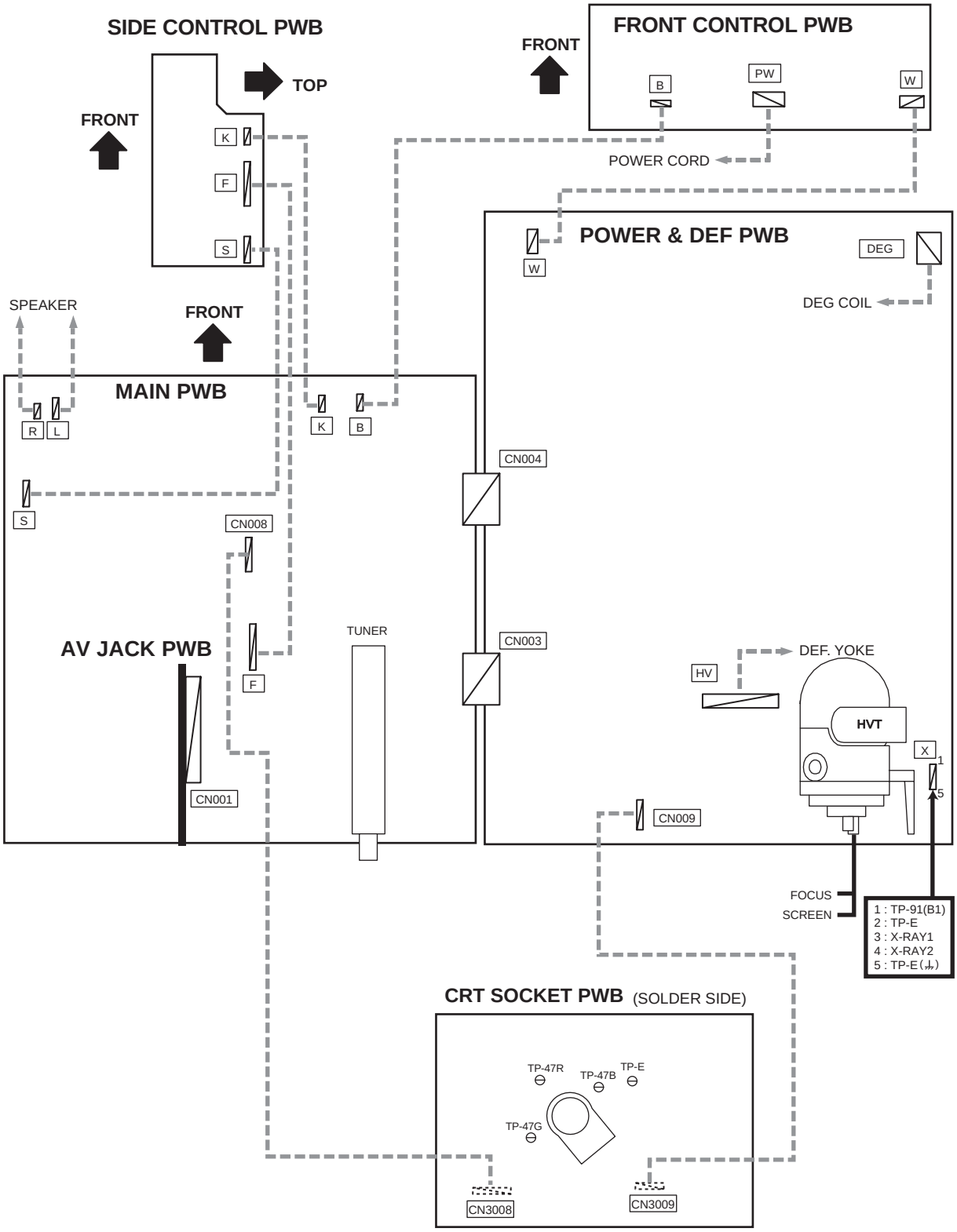
■ FOCUS
- FOCUS adjustment

■ DEFLECTION CIRCUIT
- V. POSITION adjustment
- V. SIZE adjustment
- H. POSITION adjustment
- H. SIZE adjustment
- SIDE-PIN adjustment
- TRAPEZIUM adjustment
- CORNER adjustment
- ANGLE adjustment
- BOW adjustment
- V. S-SHAPE CORRECTION & V.LINEARITY adjustment

■ VIDEO CIRCUIT
- WHITE BALANCE adjustment
- SUB BRIGHT adjustment
- SUB CONTRAST adjustment
- SUB COLOUR adjustment
- SUB HUE adjustment
- SECAM BLACK OFFSET adjustment

■ VSM PRESET SETTING
- VSM PRESET setting

4.5 ADJUSTMENT LOCATIONS



4.6 TOOL OF SERVICE MODE OPERATION

Operate the SERVICE MODE with the REMOTE CONTROL UNIT.

4.6.1 SERVICE MODE ITEMS

With the SERVICE MODE, various adjustment can be made, and they are broadly classified in the following items of settings.

1.IF	This mode adjusts the IF circuit.
2.V/C	This mode adjusts the VIDEO circuit
3.AUDIO	This mode adjusts the AUDIO circuit. **[Do no adjust]**
4.DEF	This mode adjusts the DEFLECTION circuit.
5.VSM PRESET	This mode sets the VSM (Video Status Memory) data.
6.VPS	This mode shows the monitor of the VPS, PDC, WSS and SN. **[Do not adjust]**
7.SHIPPING (OFF)	This mode initialize the data for factory shipment. **[Do no adjust]**

4.6.2 BASIC OPERATION IN SERVICE MODE

4.6.2.1 HOW TO ENTER THE SERVICE MODE

Press the **[INFORMATION]** key and **[MUTING]** key of the REMOTE CONTROL UNIT simultaneously. Then SERVICE MODE screen will be displayed as shown figure.

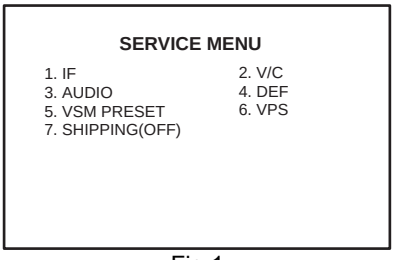


Fig.1

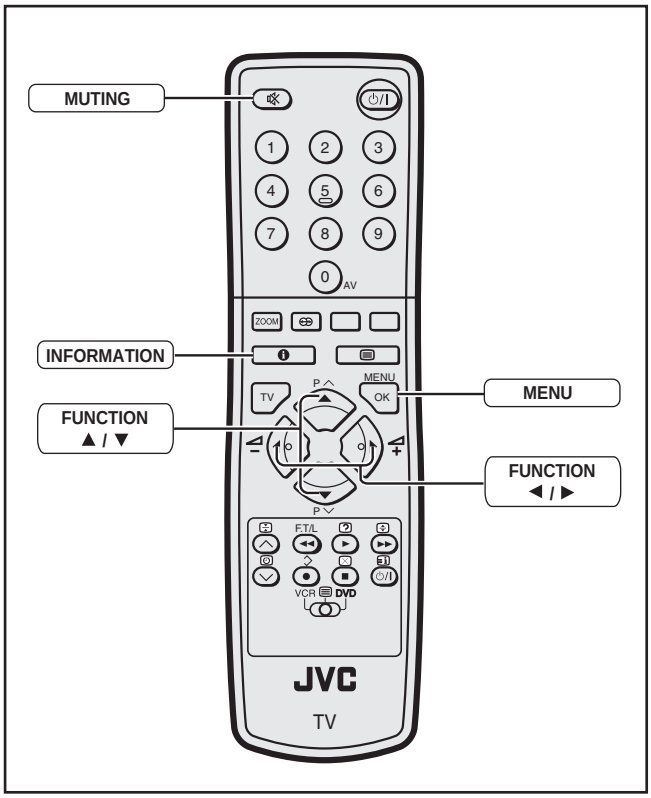


Fig.2

4.6.2.2 SELECTION OF SUB MENU SCREEN

Press one of the CHANNEL number key with the remote control unit, and select the SUB MENU SCREEN from SERVICE MODE.

4.6.2.3 SETTING METHOD

■ **1.IF**

[1. VCO] : It must not adjust without signal

(1) **[1]** key
Select 1.IF.

(2) **[1]** key
Select 1.VCO(CW).
Check the arrow position between the ABOVE REF. and BELOW REF.

(3) **[INFORMATION]** key
Return to the SERVICE MODE main manu screen.

■ **2.V/C, 4.DEF and 5.VSM PRESET.**

(1) **[2]**, **[4]** and **[5]**key
Select one from 2.V/C, 4.DEF, 5.VSM PRESET.

(2) **[FUNCTION ▲/▼]** key
Select setting items.

(3) **[FUNCTION ◄ / ►]** key
Set the setting values of the setting items.

(4) **[MENU]** key
Memorize the setting value.
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key. if you do, the values will not be stored in memory.)

(5) **[INFORMATION]** key
Return to the SERVICE MODE main manu screen.

■ **3.AUDIO, 6.VPS and 7.SHIPPING (OFF)**

It is not requirement to adjustment.

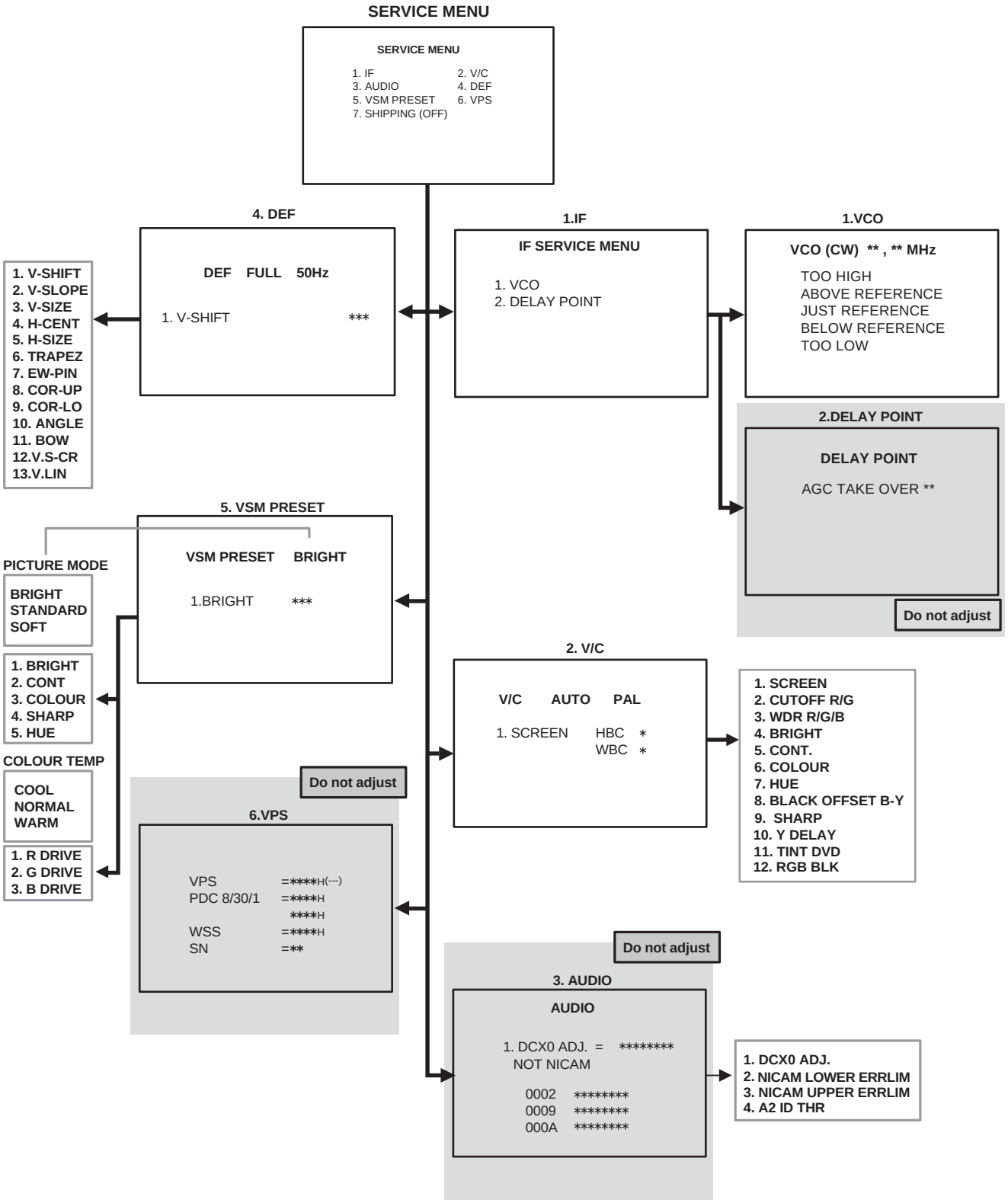
4.6.2.4 MEMORIZE THE ADJUSTMENT DATA

When adjustment is completed, press the **[MENU]** key to memorize the adjustment value. If not to do it, adjustment data is not memorized to the memory IC. And if exit the adjustment mode before memorize the data, the adjustment value which you change is canceled.

4.6.2.5 RELEASE OF SERVICE MODE

After completing the setting, return to the SERVICE MODE, then again press the **[INFORMATION]** key.

4.6.3 SERVICE MODE FLOW CHART



4.7 INITIAL SETTING VALUE OF SERVICE MODE

(1) Adjustment of the SERVICE MODE is made on the basis of the initial setting values. However, the new setting values which displays on the screen in its optimum condition may differ from the initial setting value.
(2) Do not change the initial setting values of the items not listed in “ADJUSTMENT PROCEDURE”.
(3) “---” is impossible to adjust or not requirement to adjustment.

4.7.1 [2. V/C]

Setting item		Variable range	Setting value				
			PAL	SECAM	NTSC	NTSC4.43	RGB
2. CUT OFF	RED	-63 - +63	0	0	0	0	0
	GREEN	-63 - +63	0	0	0	0	0
3. WDR	RED	-63 - +63	0	0	0	0	-5
	GREEN	-63 - +63	0	0	0	0	0
	BLUE	-63 - +63	0	0	0	0	-5
4. BRIGHT		-63 - +63	0	0	0	0	0
5. CONT.		-63 - +63	-10	-10	-10	-10	0
6. COLOUR		-63 - +63	0	0	0	0	-3
7. HUE		-63 - +63	---	---	0	0	---
8. BLACK OFFSET	B-Y	0 - 3	---	3	---	---	---

Setting item	Variable range	Setting value								
		PAL		SECAM		NTSC		NTSC4.43		RGB
		RF	VIDEO	RF	VIDEO	RF	VIDEO	RF	VIDEO	
9. SHARP	-63 - +63	+5	+5	+5	+5	+5	+5	+5	+5	+5

Setting item	Variable range	Setting value												
		PAL			SECAM			NTSC			NTSC4.43			RGB
		RF	VIDEO	S	RF	VIDEO	S	RF	VIDEO	S	RF	VIDEO	S	
10. Y DELAY	0 - +15	+5	+3	+5	+5	+3	+5	+5	+3	+5	+5	+3	+5	---

Setting item	Variable range	Setting value				
		PAL	SECAM	NTSC	NTSC4.43	RGB
11. TINT DVD	-63 - +63	-11	-11	-11	-11	-11
12. RGB BLK	---	0	0	0	0	---

4.7.2 [3. AUDIO] [Do not adjust]

Setting item	Variable range	Setting value
1. DCXO ADJ.	---	F0
2. NICAM LOWER ERRLIM	00H - FFH	6F
3. NICAM UPPER ERRLIM	00H - FFH	B0
4. A2 ID THR	00H - FFH	00

4.7.3 [4. DEF]

Setting item	Variable range	Initial setting value											
		FULL		PANORAMIC		SUBTITLE		14:9 ZOOM		REGULAR		COMPRESS	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
1.V-SHIFT	-32 - +31	+3	±0	±0	±0	±0	±0	±0	±0	±0	±0	[-4]	[±0]
2.V-SLOPE	-32 - +31	-8	[±0]	[±0]	[±0]	[-4]	[±0]	[±0]	[±0]	[±0]	[±0]	[±0]	[±0]
3.V-SIZE	-32 - +31	+2	±0	+4	+2	+24	±0	+14	±0	±0	±0	[-32]	[±0]
4.H-CENT	-32 - +31	+15	+4	±0	±0	±0	±0	±0	±0	±0	±0	[+13]	[-6]
5.H-SIZE	-32 - +31	+20	-1	-1	±0	±0	±0	-12	±0	+8	±0	[+4]	[±0]
6.TRAPEZ	-32 - +31	±0	+1	±0	±0	-3	±0	±0	±0	±0	±0	[±0]	[±0]
7.EW-PIN	-32 - +31	-14	±0	±0	±0	±0	±0	±0	±0	+2	±0	[±0]	[±0]
8.COR-UP	-32 - +31	±0	±0	±0	±0	±0	±0	±0	±0	±0	±0	[±0]	[±0]
9.COR-LO	-32 - +31	±0	±0	+3	±0	+8	±0	±0	±0	±0	±0	[±0]	[±0]
10.ANGLE	-32 - +31	±0	-1	±0	±0	±0	±0	±0	±0	±0	±0	[±0]	[±0]
11.BOW	-32 - +31	±0	±0	±0	±0	±0	±0	±0	±0	±0	±0	[±0]	[±0]
12.V.S-CR	-32 - +31	-14	-3	+10	±0	+8	±0	±0	±0	±0	±0	[±0]	[±0]
13.V.LIN	-32 - +31	-5	±0	±0	±0	+16	±0	±0	±0	±0	±0	[±0]	[±0]

NOTE: [ ] is fixed values.

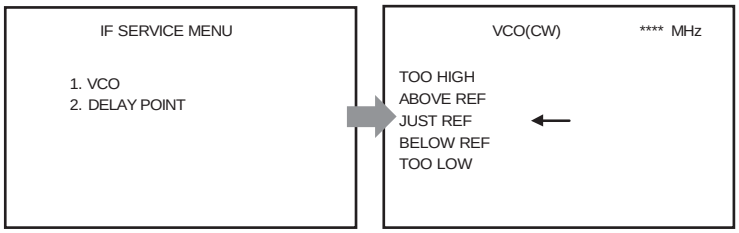
4.7.4 [5. VSM PRESET]

Item	Variable range	Setting value					
		PICTURE MODE			COLOUR TEMP.		
		BRIGHT	STANDARD	SOFT	COOL	NORMAL	WARM
1.BRIGHT	-16 - +16	0	0	0	---	---	---
2.CONT	-16 - +16	+12	+10	+2	---	---	---
3.COLOUR	-16 - +16	+6	0	-2	---	---	---
4.SHARP	-16 - +16	0	0	-2	---	---	---
5.HUE	-16 - +16	0	0	0	---	---	---
1.R DRIVE	-63 - +63	---	---	---	-7	0	+5
2.G DRIVE	-63 - +63	---	---	---	0	0	0
3.B DRIVE	-63 - +63	---	---	---	+7	0	-5

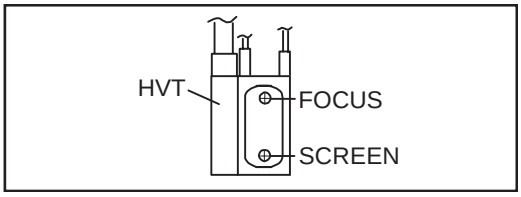
4.8 ADJUSTMENT PROCEDURE

4.8.1 CHECK ITEM

Item	Measuring instrument	Test point	Adjustment part	Description
B1 VOLTAGE	DC voltmeter Remote control unit	X connector 1-pin:TP-91(B1) 5-pin:TP-E **[POWER & DEF PWB]**	[2.V/C] 12.RGB BLK	(1) Receive the any broadcast. (2) Select **2. V/C** from the SERVICE MODE. (3) Select **< 12. RGB BLK >**. (4) Press the **[FUNCTION ▸]** key to find the cut off screen (Black screen). (5) Connect a DC voltmeter to 1-pin and 5-pin. (6) Make sure that the voltage is **DC143V ± 2.0V**. (7) Press the **[FUNCTION ◂]** key to return to SERVICE MODE.
HIGH VOLTAGE	HV voltmeter Remote control unit	CRT anode Chassis GND	[2.V/C] 12.RGB BLK	(1) Receive the any broadcast. (2) Select **2. V/C** from the SERVICE MODE. (3) Select **< 12. RGB BLK >**. (4) Press the **[FUNCTION ▸]** key to find the cut off screen (Black screen). (5) Connect a HV voltmeter to CRT ANODE and chassis GND. (Ground side is connected previously) (6) Make sure that the voltage is **DC 31.0kV (+1kV/-1.5kV)**. (7) Press the **[FUNCTION ◂]** key to return to SERVICE MODE. **NOTE:** Remove the probe before removing the earth clip.
IF VCO	Remote control unit		[1.IF] 1.VCO	• Under normal conditions, no adjustment is required. • It must not adjust without broadcast signal. (1) Receive the any broadcast. (2) Select **1.IF** from the SERVICE MODE. (3) Select **< 1.VCO >**. (4) Check the "←" position between the ABOVE REF. and BELOW REF.



4.8.2 FOCUS

Item	Measuring instrument	Test point	Adjustment part	Description
FOCUS	Signal generator		FOCUS VR **[In HVT]**	(1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) While looking at the screen, adjust the FOCUS VR to the vertical and horizontal lines will be clear and infine detail. (4) Make sure that the picture is in focus even when the screen gets darkened. 

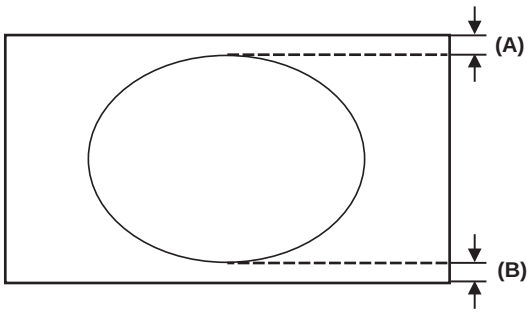
4.8.3 DEFLECTION CIRCUIT

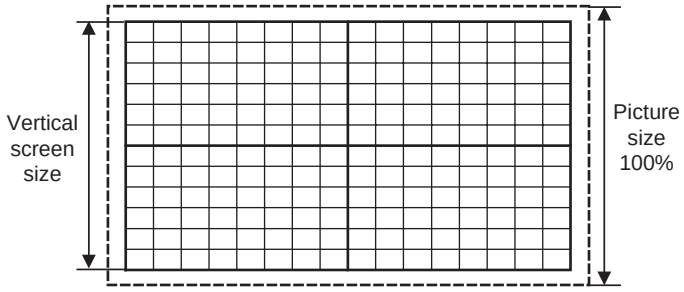
There are 6 aspect modes (1.**FULL**, 2.**PANORAMIC** 3.**SUBTITLE**, 4.**14 : 9 ZOOM**, 5.**REGULAR**, 6.**COMPRESS**) of the adjustment. Depending upon the kind of signals.

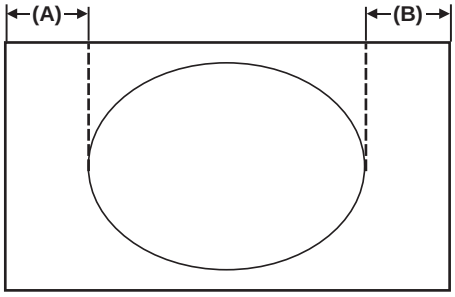
NOTE :

- At first the adjustment in 50Hz FULL mode should be done, then the data for the other aspect mode is corrected in the respective value at the same time. And confirm the deflection adjustment initial setting value in 60Hz (NTSC EXT mode) FULL mode. If the adjustment in 50Hz each aspect mode has been done and stored, the data for the same aspect modes in 60Hz is corrected in the respective value. Only the data for the other aspect mode in 60Hz is corrected for itself.

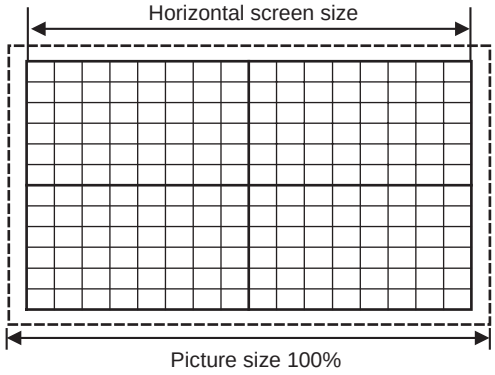
<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>V. POSITION</td><td>Signal generator

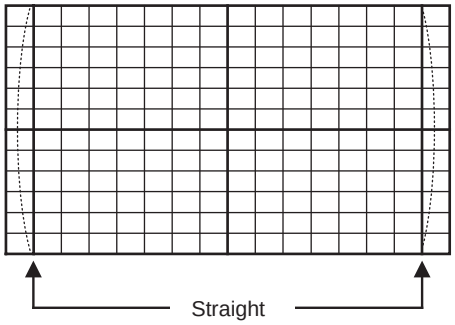
Remote control unit</td><td></td><td>[4.DEF]
1.V- SHIFT</td><td rowspan="2">(1) Receive the circle pattern signal of vertical frequency 50Hz (PAL).
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 1.V-SHIFT >.
(5) Adjust vertical position to make A = B.
(6) Check the adjustment value above in other zoom mode. If it is a wrong adjustment, readjust in FULL mode and adjust by < 1.V-SHIFT >.
(7) Press the [MENU] key to memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>V. SIZE</td><td>Signal generator

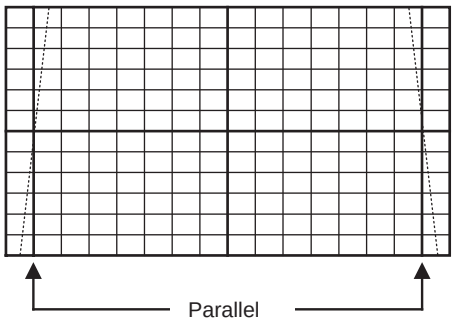
Remote control unit</td><td></td><td>[4.DEF]
3.V-SIZE</td><td rowspan="2">(1) Receive the cross hatch signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 3.V-SIZE >.
(5) Adjust to make sure that the vertical screen size of the picture size is in the bellow table.
(6) Make sure that the vertical screen size of the each ASPECT mode is in the below table.
(7) Press the [MENU] key to memorize the set value.
(8) Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the vertical screen size is in the table below.
<table><tr><th>ASPECT MODE</th><th>FULL</th><th>PANORAMIC</th><th>SUBTITLE</th><th>14:9 ZOOM</th><th>REGULAR</th></tr><tr><td>SCREEN TOP</td><td>92%</td><td>87%</td><td>70%</td><td>80%</td><td>92%</td></tr><tr><td>SCREEN BOTTOM</td><td>92%</td><td>87%</td><td>83%</td><td>80%</td><td>92%</td></tr></table></td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>H. POSITION</td><td>Signal generator

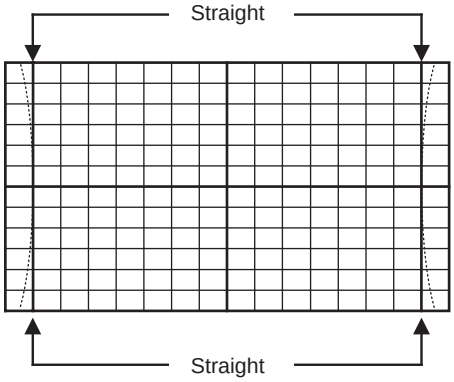
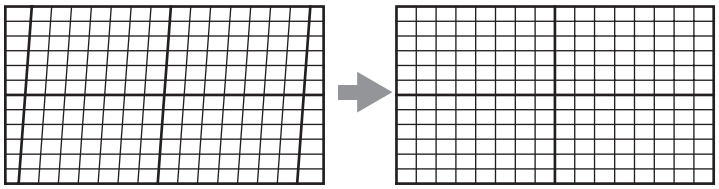
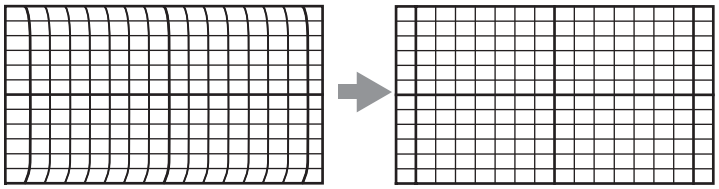
Remote control unit</td><td></td><td>[4.DEF]
4.H-CENT</td><td rowspan="2">(1) Receive the circle pattern signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 4.H-CENT >.
(5) Adjust horizontal position to make A=B.
(6) Press the [MENU] key to memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
</table>

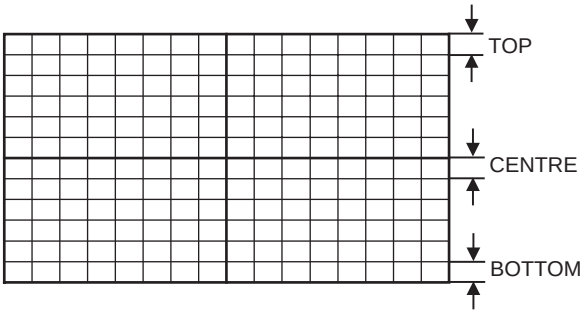
<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td>H. SIZE</td><td>Signal generator

Remote control unit</td><td></td><td>[4.DEF]
5.H-SIZE</td><td rowspan="2">(1) Receive the cross hatch signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 5.H-SIZE >.
(5) Adjust to make sure that the horizontal screen size of the picture size is in the bellow table.
(6) Make sure that the horizontal screen size of the each ASPECT mode is in the below table.
(7) Press the [MENU] key to memorize the set value.
(8) Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the horizontal screen size is in the table below.
<table><tr><td>ASPECT MODE</td><td>FULL</td><td>PANORAMIC</td><td>SUBTITLE</td><td>14:9 ZOOM</td><td>REGULAR</td></tr><tr><td>SCREEN SIZE</td><td>92%(91%)</td><td>95%(94%)</td><td>92%</td><td>495mm</td><td>450mm</td></tr></table>* 14:9 ZOOM and REGULAR is length of 90%.
* The value in ( ) shows NTSC adjustment value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>SIDE-PIN</td><td>Signal generator

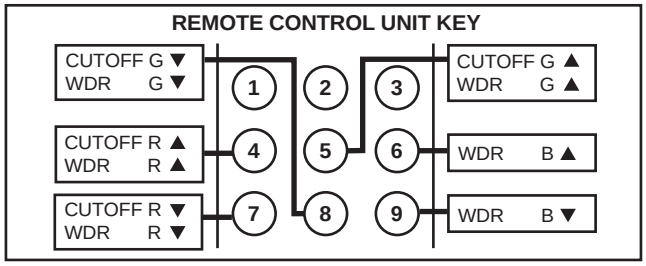
Remote control unit</td><td></td><td>[4.DEF]
7.EW-PIN</td><td rowspan="2">(1) Receive the cross hatch signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 7.EW-PIN >.
(5) Adjust to make the vertical lines at the right and left edges of the screen straight. Also make sure that the 3rd vertical lines are straight.
(6) Press the [MENU] key to memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
<tr><td>TRAPEZIUM</td><td>Signal generator

Remote control unit</td><td></td><td>[4.DEF]
6.TRAPEZ</td><td rowspan="2">(1) Receive the cross hatch signal.
(2) Set the ZOOM mode to FULL.
(3) Select 4.DEF from the SERVICE MODE.
(4) Set the initial setting value of < 6.TRAPEZ >.
(5) Adjust to bring the vertical lines at the right and left edges of the screen parallel.
(6) Press the [MENU] key to memorize the set value.</td></tr>
<tr><td colspan="4"> 
</td></tr>
</table>

Item	Measuring instrument	Test point	Adjustment part	Description
CORNER	Signal generator Remote control unit		[4.DEF] 8.COR-UP 9.COR-LO	(1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 8.COR-UP >**. (5) Adjust to bring the straight line at the upper corner. (6) Set the initial setting value of **< 9.COR-LO >**. (7) Adjust to bring the straight line at the lower corner. (8) Press the **[MENU]** key to memorize the set value.
				
ANGLE	Signal generator Remote control unit		[4.DEF] 10. ANGLE	• In case where there is a parallelogrammical distortion of images on the screen. (1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 10. ANGLE >**. (5) Adjust to bring the vertical lines straight. (6) Press the **[MENU]** key to memorize the set value.
				
BOW	Signal generator Remote control unit		[4.DEF] 11.BOW	• In case where there is a bow-shaped distortion of images on the screen. (1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 11. BOW >**. (5) Adjust to bring the vertical lines straight. (6) Press the **[MENU]** key to memorize the set value.
				

Item	Measuring instrument	Test point	Adjustment part	Description
V. S-SHAPE CORRECTION & V. LINEARITY	Signal generator Remote control unit		[4.DEF] 12.V.S-CR 13.V.LIN	• When the vertical linearity has been deteriorated remarkably, perform the following steps. (1) Receive the cross hatch signal. (2) Set the ZOOM mode to FULL. (3) Select **4.DEF** from the SERVICE MODE. (4) Set the initial setting value of **< 13.V.LIN >**. (5) Set the initial setting value of **< 12.V.S-CR >**. (6) Adjust **< 13.V.LIN >** and **< 12.V.S-CR >** so that the spaces of each line on top, centre and bottom become uniform. (7) Press the **[MENU]** key to memorize the set value.
				

4.8.4 VIDEO CIRCUIT

Item	Measuring instrument	Test point	Adjustment part	Description
WHITE BALANCE	Signal generator Remote control unit		[2. V/C] 2.CUTOFF R/G 3.WDR R/B	(1) Receive the black and white signal (colour off). (2) Set the ZOOM mode to FULL. (3) Set the PICTURE mode to STANDARD. (4) Set the COLOUR TEMP. to NORMAL. (5) Select **2.V/C** from the SERVICE MODE. (6) Select **< 2.CUTOFF >**. (7) Each select **(R)**, **(G)** and adjust the screen until the black portion in the screen becomes black. (8) Select **< 3.WDR >**. (9) Each select **(R)**, **(B)** and adjust the screen until the white portion in the screen becomes white. **NOTE: Do not adjust < 3. WDR G >.** (10) Press the **[MENU]** key to memorize the set value. (11) Change the contrast and brightness from low light to high light and check that the tracking of the white balance is good.
				
SUB BRIGHT	Remote control unit		[2. V/C] 4. BRIGHT	(1) Receive the any broadcast. (2) Set the ZOOM mode to FULL. (3) Set the PICTURE mode to STANDARD. (4) Select **2.V/C** from the SERVICE MODE. (5) Set the initial setting value of **< 4.BRIGHT >**. (6) If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness. (7) Press the **[MENU]** key to memorize the set value.
SUB CONTRAST	Remote control unit		[2. V/C] 5. CONT.	(1) Receive the any broadcast. (2) Set the ZOOM mode to FULL. (3) Set the PICTURE mode to STANDARD. (4) Select **2.V/C** from the SERVICE MODE. (5) Set the initial setting value of **< 5.CONT >**. (6) If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast. (7) Press the **[MENU]** key to memorize the set value.

<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td rowspan="2">SUB COLOUR</td><td>Signal generator

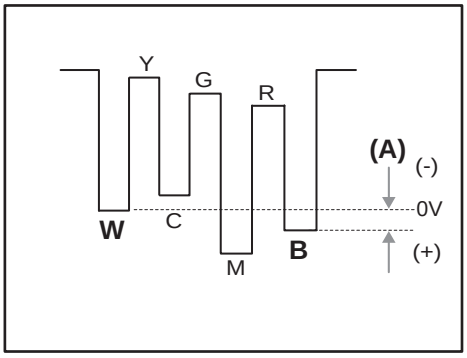
Remote control unit</td><td></td><td>[2.V/C]
6.COLOUR</td><td rowspan="2">Method of adjustment without measuring instrument
PAL COLOUR
(1) Receive PAL broadcast.
(2) Set the ZOOM mode to FULL.
(3) Set the PICTURE mode to STANDARD.
(4) Select 2.V/C from the SERVICE MODE.
(5) Set the initial setting value of < 6.COLOUR >.
(6) If the colour is not the best with the initial set value, make fine adjustment until you get the best colour.
(7) Press the [MENU] key to memorize the set value.

SECAM COLOUR [AV-28T5SP]
(1) Receive the SECAM broadcast.
(2) Follow the same step 2 to 7 as in PAL COLOUR.

NTSC 3.58 COLOUR
(1) Input the NTSC 3.58MHz signal from the EXT terminal.
(2) Follow the same step 2 to 7 as in PAL COLOUR.

NTSC 4.43 COLOUR
(1) When NTSC 3.58 COLOUR set, NTSC 4.43 COLOUR will automatically set.</td></tr>
<tr><td>Signal generator

Oscilloscope

Remote control unit</td><td>TP-47B
TP-E
[CRT SOCKET PWB]</td><td>[2.V/C]
6.COLOUR</td></tr>
<tr><td colspan="4"> 

<table>
<tr><th rowspan="2">Setting item</th><th colspan="3">Adjustment value</th></tr>
<tr><th>PAL</th><th>SECAM</th><th>NTSC</th></tr>
<tr><td>VOLTAGE (W-B)</td><td>-3V</td><td>0V</td><td>+2V</td></tr>
</table></td><td>Method of adjustment using measuring instrument
PAL COLOUR
(1) Receive the PAL full field colour bar signal (75% white).
(2) Set the ZOOM mode to FULL.
(3) Set the PICTURE mode to STANDARD.
(4) Select 2.V/C from the SERVICE MODE.
(5) Set the initial setting value of < 6.COLOUR >.
(6) Connect the oscilloscope between TP-47B and TP-E.
(7) Adjust < 6. COLOUR > and bring the value of (A) in the illustration into the value shown in the table.
(8) Press the [MENU] key to memorize the set value.

SECAM COLOUR [AV-28T5SP]
(1) Receive the SECAM colour bar signal (75% white).
(2) Follow the same step 2 to 8 as in PAL COLOUR.

NTSC 3.58 COLOUR
(1) Input the NTSC 3.58MHz signal (full field colour bar with 75% white) from the EXT terminal.
(2) Follow the same step 2 to 8 as in PAL COLOUR.

NTSC 4.43 COLOUR
(1) When NTSC 3.58 COLOUR set, NTSC 4.43 COLOUR will automatically set.</td></tr>
</table>

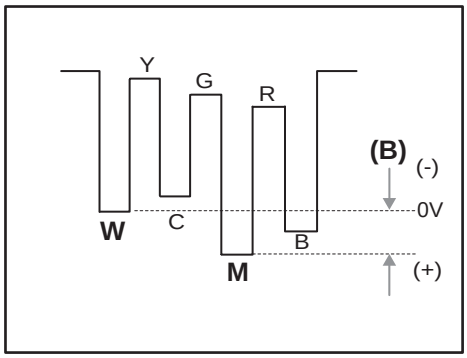
<table>
<tr><th>Item</th><th>Measuring instrument</th><th>Test point</th><th>Adjustment part</th><th>Description</th></tr>
<tr><td rowspan="2">SUB HUE</td><td>Signal generator

Remote control unit</td><td></td><td>[2.V/C]
7.HUE</td><td>Method of adjustment without measuring instrument
NTSC 3.58 TINT
(1) Input the NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.
(2) Set the ZOOM mode to FULL.
(3) Set the PICTURE mode to STANDARD.
(4) Select 2.V/C from the SERVICE MODE.
(5) Set the initial setting value of < 7. HUE >.
(6) If you cannot get the best hue with the initial setting value, make fine adjustment until you get the best hue.
(7) Press the [MENU] key to memorize the set value.

NTSC 4.43
(1) When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.</td></tr>
<tr><td>Signal generator

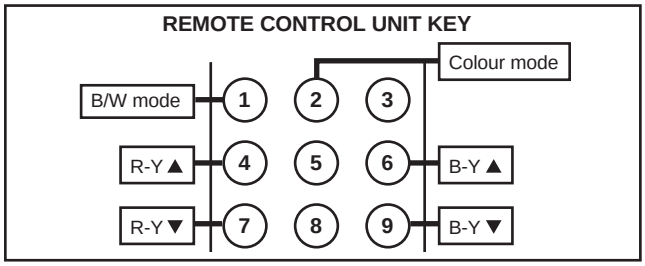
Oscilloscope

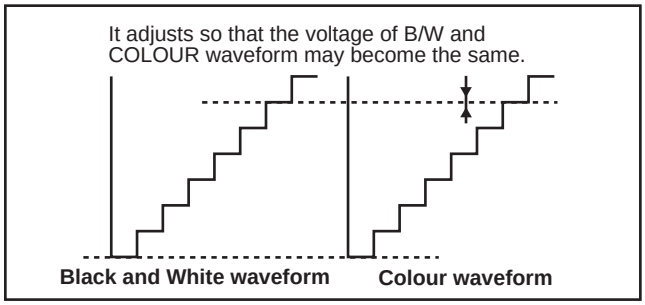
Remote control unit</td><td>TP-47B
TP-E
[CRT SOCKET PWB]</td><td>[2.V/C]
7.HUE</td><td rowspan="2">Method of adjustment using measuring instrument
NTSC 3.58 TINT
(1) Input the NTSC 3.58MHz signal (full field colour bar with 75% white) from the EXT terminal.
(2) Set the ZOOM mode to FULL.
(3) Set the PICTURE mode to STANDARD.
(4) Select 2.V/C from the SERVICE MODE.
(5) Set the initial setting value of < 7. HUE >.
(6) Connect the oscilloscope between TP-47B and TP-E.
(7) Adjust < 7. HUE > and bring the value of (B) in the illustration into the value shown in the table.
(8) Press the [MENU] key and memorize the set value.

NTSC 4.43 TINT
(1) When NTSC 3.58 COLOUR set, NTSC 4.43 COLOUR will automatically set.</td></tr>
<tr><td colspan="3"> 

<table>
<tr><th>Setting item</th><th>Adjustment value</th></tr>
<tr><td>VOLTAGE (W-M)</td><td>0V</td></tr>
</table></td></tr>
</table>

Item	Measuring instrument	Test point	Adjustment part	Description
SECAM BLACK OFFSET [AV-28T5SP]	Signal generator Oscilloscope Remote control unit	TP-47B TP-E **[CRT SOCKET PWB]**	[2.V/C] 8. BLACK OFF-SET	(1) Receive the SECAM full field colour bar signal. (2) Set the ZOOM mode to FULL. (3) Set the PICTURE mode to STANDARD. (4) Select **2. V/C** from the SERVICE MODE. (5) Set the initial setting value of **< 8.BLACK OFFSET >**. (6) Connect the oscilloscope between TP-47B and TP-E at the CRT SOCKET PWB. (7) Press **[1]** and **[2]** keys alternately (turn the colour on and off), check the waveform of difference in the voltage. (8) While looking at the waveform, adjust **< 8.BLACK OFFSET >** to become same level of the signal voltage of black and white waveform by pressing **[6]** or **[9]** keys of remote control unit. (9) Press the **[MENU]** key to memorize the set value.





4.8.5 VSM PRESET SETTING

Item	Measuring instrument	Test point	Adjustment part	Description
VSM PRESET	Remote control unit		[5. VSM PRESET] 1. BRIGHT 2. CONT 3. COLOUR 4. SHARP 5. HUE 1. R DRIVE 2. G DRIVE 3. B DRIVE	(1) Select **5. VSM PRESET** from the SERVICE MODE. (2) Set the PICTURE MODE to BRIGHT. (3) Select **< 1. BRIGHT >**. (4) Set the initial setting value of PICTURE MODE, as shown in the below table. (5) Press the **[MENU]** key to memorize the set value. (6) Select **< 2.CONT >** to **< 5.HUE >** in turn, and set the values. (7) Respectively select the "SOFT" and "STANDARD". Make similar adjustment as same step as above. (8) Set the COLOUR TEMP to COOL. (9) Select **< 1.R DRIVE >**. (10) Set the initial setting value of COLOUR TEMP., as shown in the below table. (11) Press the **[MENU]** key to memorize the set value. (12) Select **< 2.G DRIVE >** and **< 3.B DRIVE >** in turn, and set values. (13) Respectively select the "WARM" and "NORMAL". Make similar adjustment as same step as above.

■ **VSM PRESET TABALE**

Item	Variable range	Setting value					
		PICTURE MODE			COLOUR TEMP.		
		BRIGHT	STANDARD	SOFT	COOL	NORMAL	WARM
1.BRIGHT	-16 - +16	0	0	0	---	---	---
2.CONT	-16 - +16	+12	+10	+2	---	---	---
3.COLOUR	-16 - +16	+6	0	-2	---	---	---
4.SHARP	-16 - +16	0	0	-2	---	---	---
5.HUE	-16 - +16	0	0	0	---	---	---
1.R DRIVE	-63 - +63	---	---	---	-7	0	+5
2.G DRIVE	-63 - +63	---	---	---	0	0	0
3.B DRIVE	-63 - +63	---	---	---	+7	0	-5

SECTION 5
TROUBLE SHOOTING

This service manual does not describe TROUBLE SHOOTING.

JVC
Victor Company of Japan, Limited
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(No.YA261)

Printed in Japan
VPT

JVC

SCHEMATIC DIAGRAMS

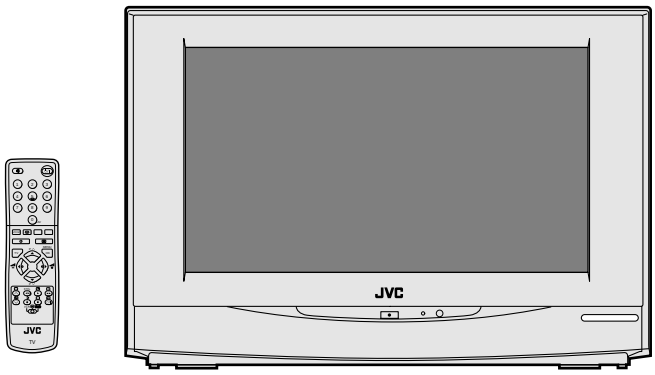
COLOUR TELEVISION

AV-28T5SP, AV-28T5SK, AV-28T5SR, AV-28T5BR, AV-28T5BK

CD-ROM No.SML200503

BASIC CHASSIS
JW2

T-V LINK



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No.YA261
2005/3

AV-28T5SP, AV-28T5BK, AV-28T5SK, AV-28T5BR, AV-28T5SK

STANDARD CIRCUIT DIAGRAM

■ NOTE ON USING CIRCUIT DIAGRAMS

1.SAFETY

The components identified by the ⚠ symbol and shading are critical for safety. For continued safety replace safety ciritical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

(1)Input signal	: Colour bar signal
(2)Setting positions of each knob/button and variable resistor	: Original setting position when shipped
(3)Internal resistance of tester	: DC 20kΩ/V
(4)Oscilloscope sweeping time	: H ⇒ 20µs / div
	: V ⇒ 5ms / div
	: Othters ⇒ Sweeping time is specified
(5)Voltage values	: All DC voltage values

∗ Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R209 → R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

● Resistance value

No unit	: [Ω]
K	: [kΩ]
M	: [MΩ]

● Rated allowable power

No indication	: 1/16 [W]
Others	: As specified

● Type

No indication	: Carbon resistor
OMR	: Oxide metal film resistor
MFR	: Metal film resistor
MPR	: Metal plate resistor
UNFR	: Uninflammable resistor
FR	: Fusible resistor

∗ Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

● Capacitance value

1 or higher	: [pF]
less than 1	: [µF]

● Withstand voltage

No indication	: DC50[V]
Others	: DC withstand voltage [V]
AC indicated	: AC withstand voltage [V]

∗ Electrolytic Capacitors

47/50[Example]: Capacitance value [µF]/withstand voltage[V]

● Type

No indication	: Ceramic capacitor
MM	: Metalized mylar capacitor
PP	: Polypropylene capacitor
MPP	: Metalized polypropylene capacitor
MF	: Metalized film capacitor
TF	: Thin film capacitor
BP	: Bipolar electrolytic capacitor
TAN	: Tantalum capacitor

(3)Coils

No unit	: [µH]
Others	: As specified

(4)Power Supply

: B1

: B2 (12V)

: 9V

: 5V

∗ Respective voltage values are indicated

(5)Test point

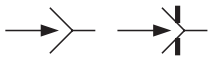
: Test point

: Only test point display

(6)Connecting method

: Connector

: Wrapping or soldering


: Receptacle

(7)Ground symbol

: LIVE side ground

: ISOLATED(NEUTRAL) side ground

: EARTH ground

: DIGITAL ground

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (⏚) side GND. Therefore, care must be taken for the following points.

(1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. if the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.

(2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected, a fuse or any parts will be broken.

◆ **Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.**

NOTE

◆ **Due improvement in performance, some part numbers show in the circuit diagram may not agree with those indicated in the part list.**
When ordering parts, please use the numbers that appear in the Parts List.

CONTENTS

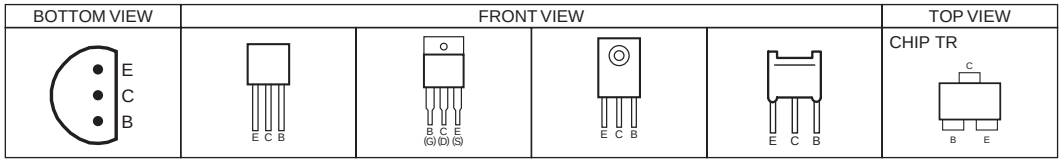
SEMICONDUCTOR SHAPES 2-2
BLOCK DIAGRAM 2-3
CIRCUIT DIAGRAMS
MAIN PWB CIRCUIT DIAGRAM 2-5
CRT SOCKET PWB CIRCUIT DIAGRAM 2-11
AV JACK PWB CIRCUIT DIAGRAM 2-13
POWER & DEF PWB CIRCUIT DIAGRAM 2-15
FRONT BOARD PWB CIRCUIT DIAGRAM 2-17
SIDE BOARD PWB CIRCUIT DIAGRAM 2-19
PATTERN DIAGRAMS
MAIN PWB PATTERN 2-21
POWER & DEF PWB PATTERN 2-23
CRT SOCKET PWB PATTERN 2-25
AV JACK PWB PATTERN 2-25
FRONT BOARD PWB PATTERN 2-26
SIDE BOARD PWB PATTERN 2-26
VOLTAGE CHARTS 2-27
WAVE FORMS 2-28

USING P.W. BOARD

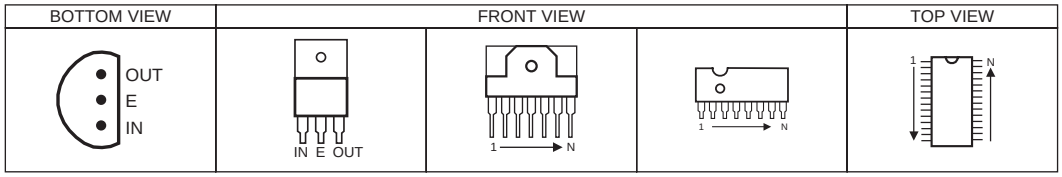
P.W.B ASS'Y name	AV-28T5SP	AV-28T5BK	AV-28T5SK	AV-28T5BR	AV-28T5SR
MAIN P.W. BOARD	SJW-1012A-U2	SJW-1912A-U2	←	SJW-1012A-U2	SJW-1911A-U2
CRT SOCKET P.W. BOARD	SJW-3012A-U2	←	←	←	←
AV JACK P.W. BOARD	SJW0J011A-U2	←	←	←	←
POWER & DEF P.W. BOARD	SJW-2012A-U2	←	←	←	←
FRONT BOARD P.W. BOARD	SJW-8011A-U2	←	←	←	←
SIDE BOARD P.W. BOARD	SJW-8111A-U2	←	←	←	←

SEMICONDUCTOR SHAPES

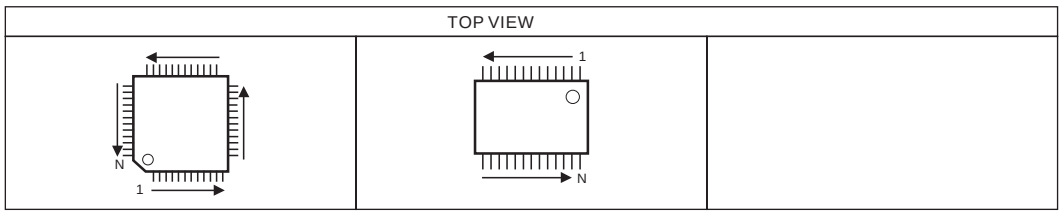
TRANSISTOR



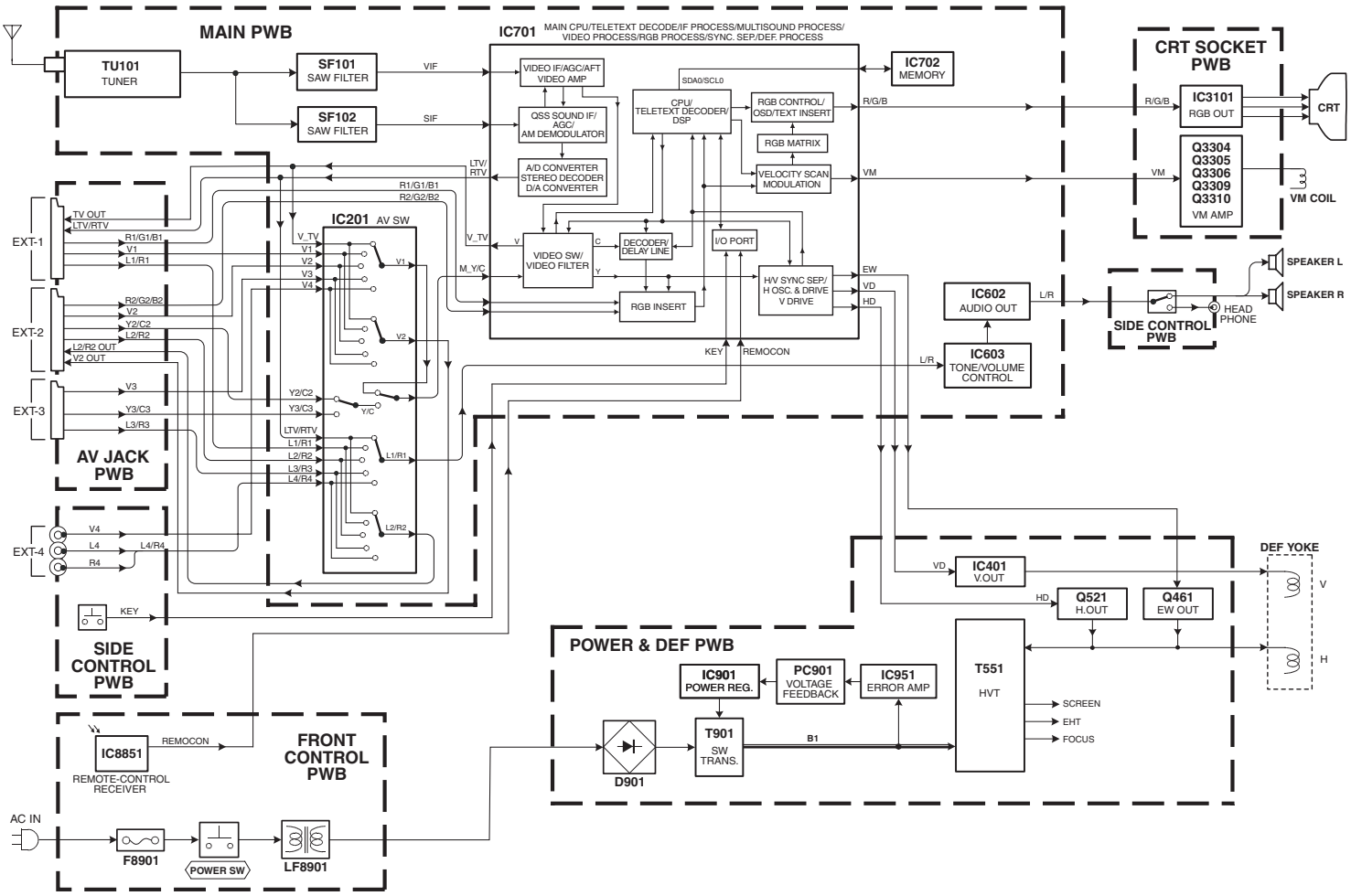
IC



CHIP IC

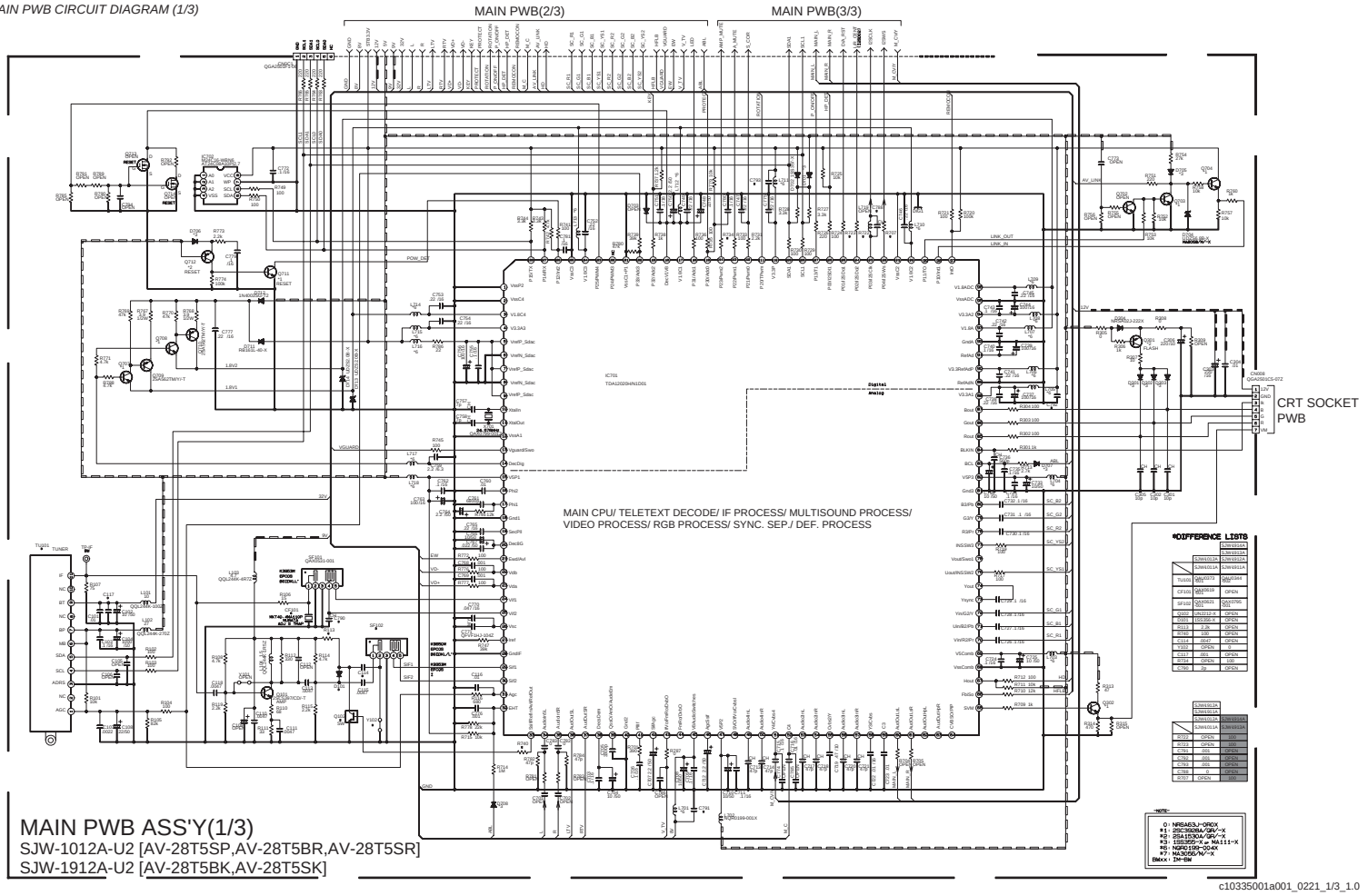


BLOCK DIAGRAM



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM (1/3)

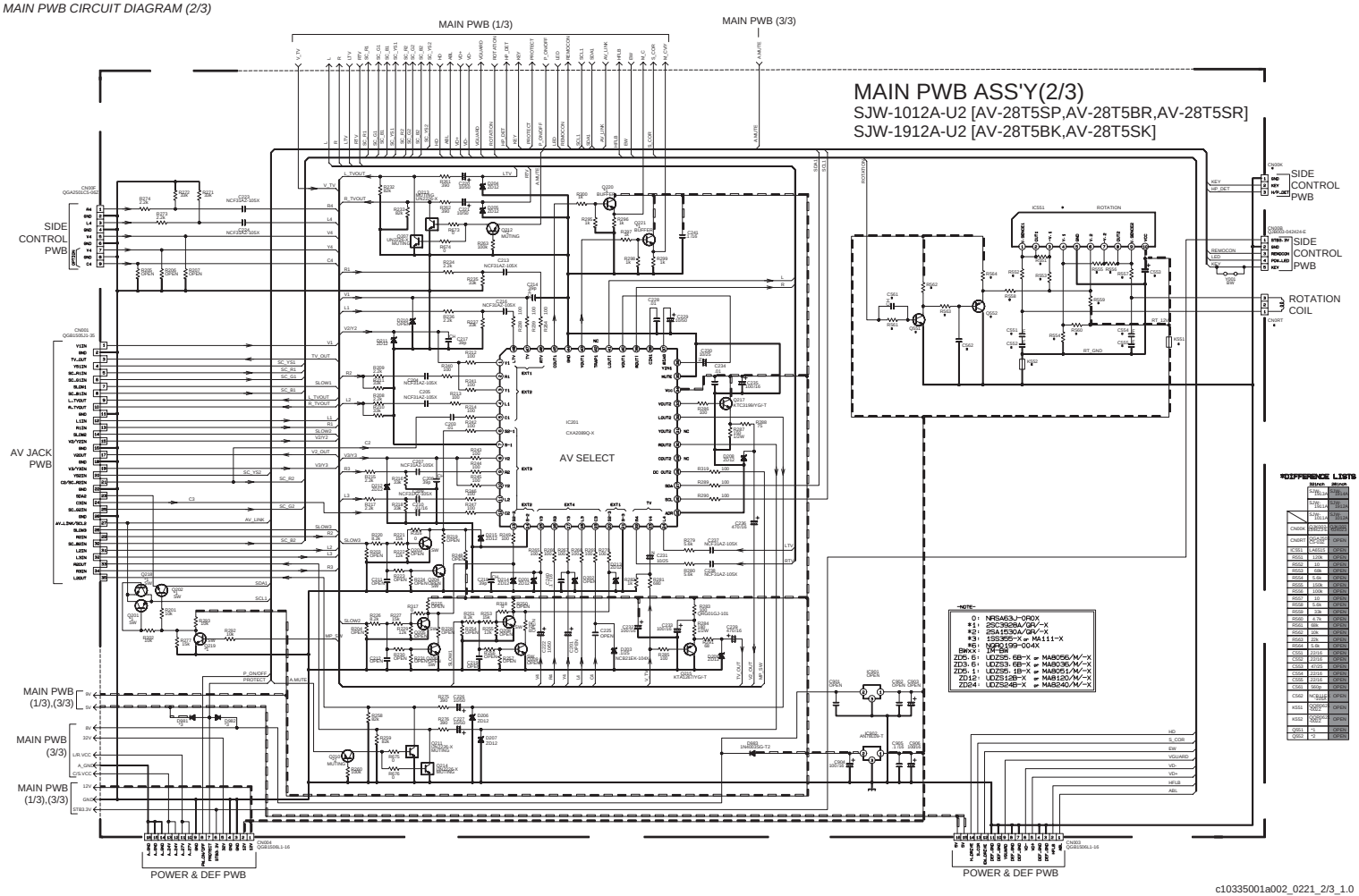


MAIN PWB ASS'Y(1/3)

SJW-1012A-U2 [AV-28T5SP,AV-28T5BR,AV-28T5SR]
SJW-1912A-U2 [AV-28T5BK,AV-28T5SK]

c10335001a001_0221_1/3_1.0

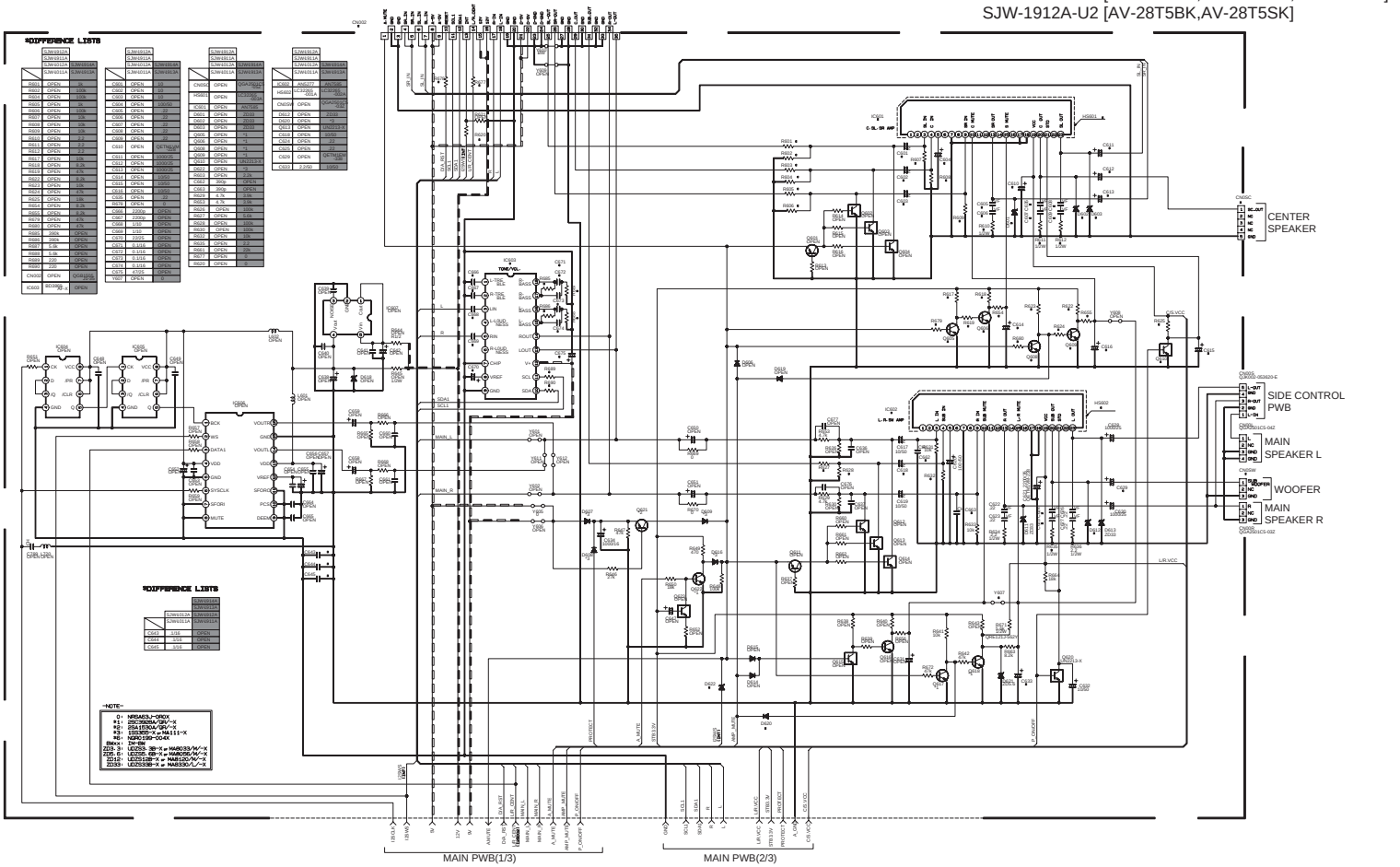
MAIN PWB CIRCUIT DIAGRAM (2/3)



c10335001a002_0221_2/3_1.0

MAIN PWB ASS'Y(3/3)

SJW-1012A-U2 [AV-28T5SP,AV-28T5BR,AV-28T5SR]
SJW-1912A-U2 [AV-28T5BK,AV-28T5SK]



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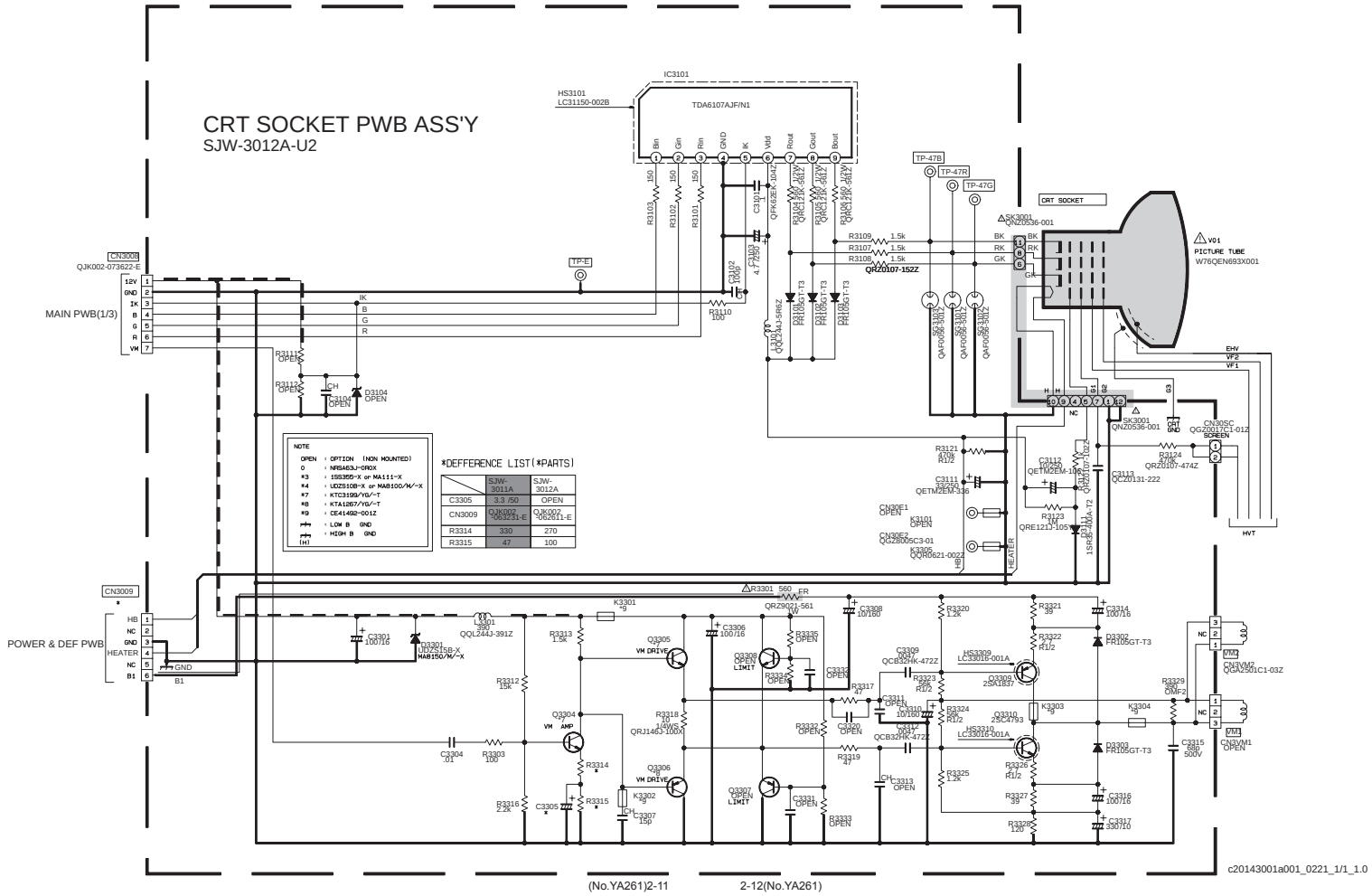
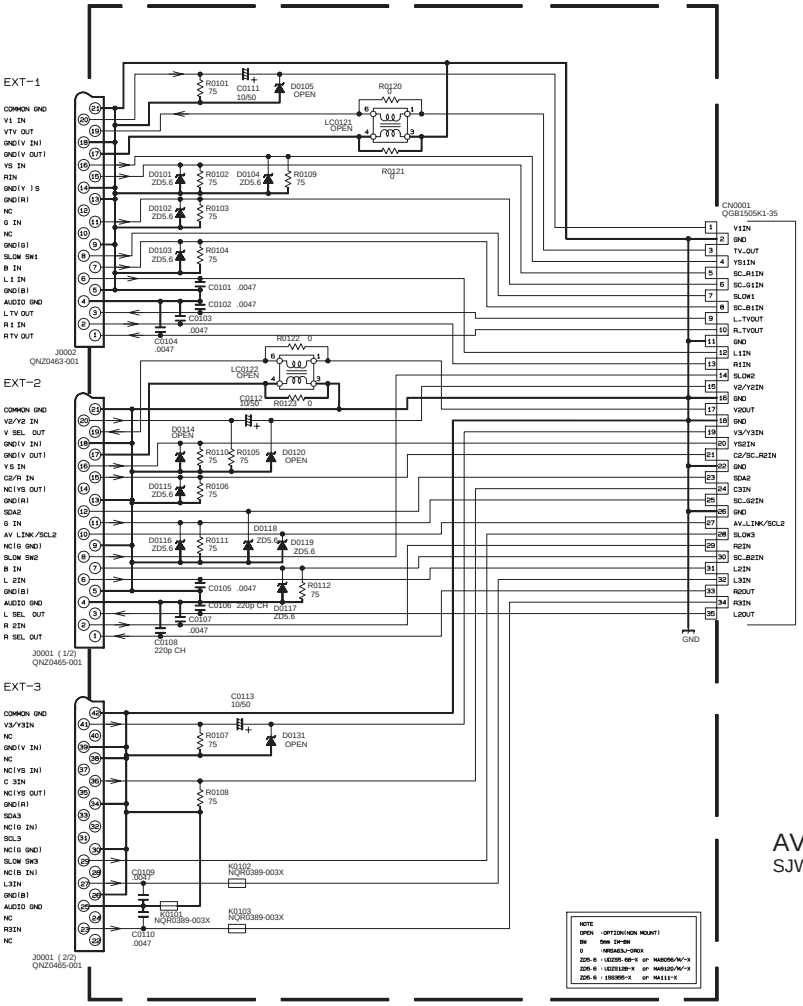
CRT COCKET PWB CIRCUIT DIAGRAM



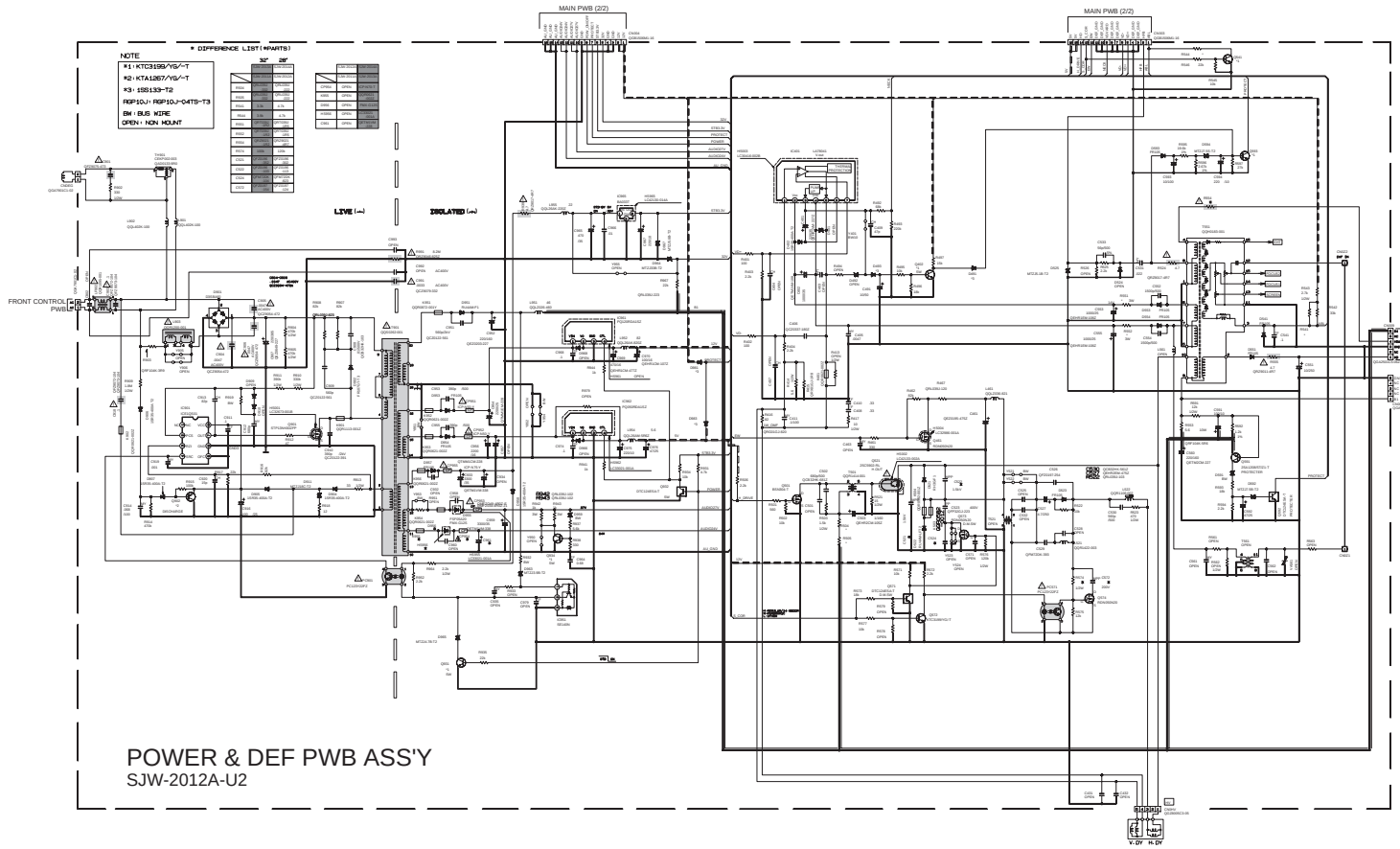
AV JACK PWB CIRCUIT DIAGRAM



AV JACK PWB ASS'Y

SJW0J011A-U2

POWER & DEF PWB CIRCUIT DIAGRAM



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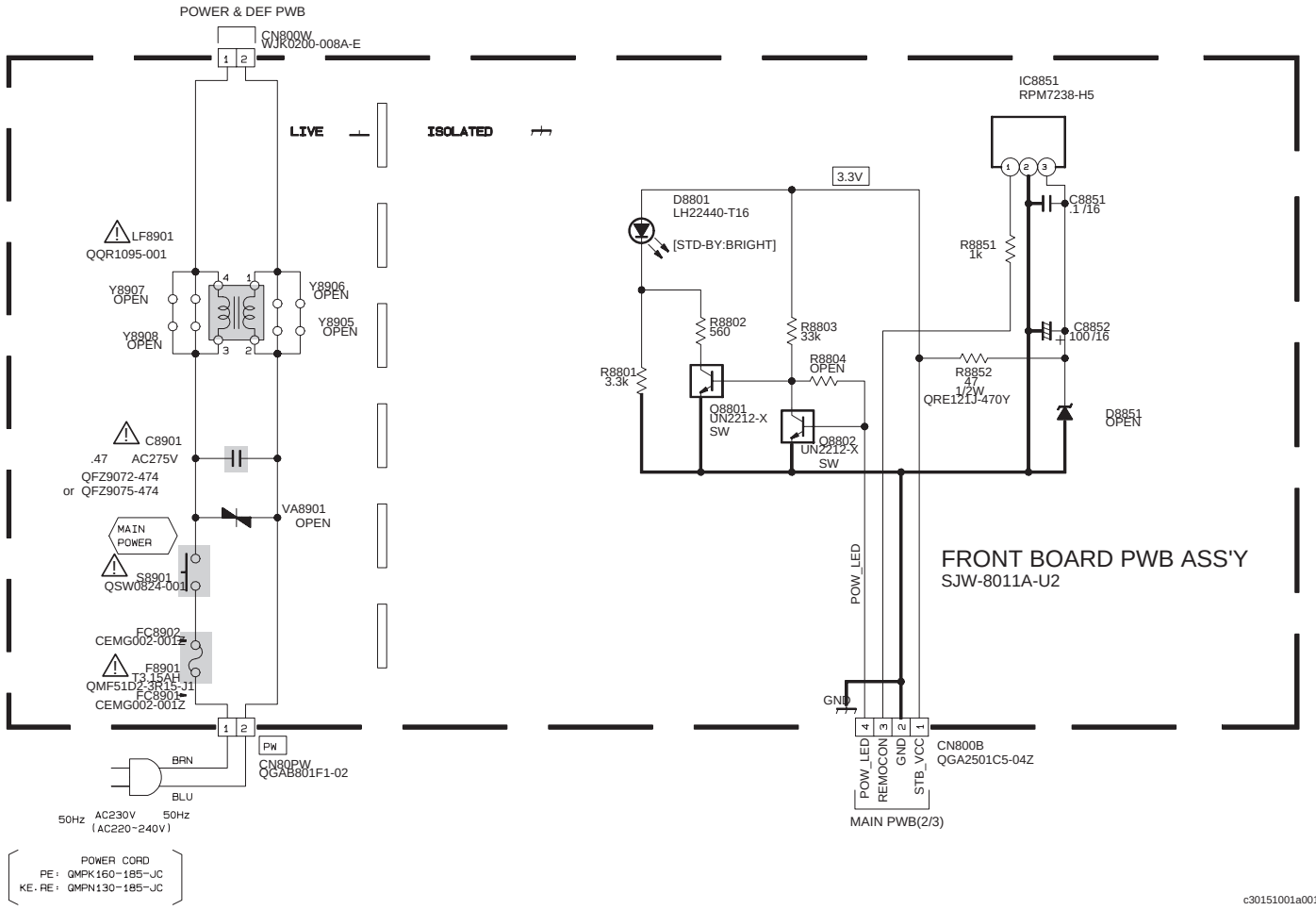
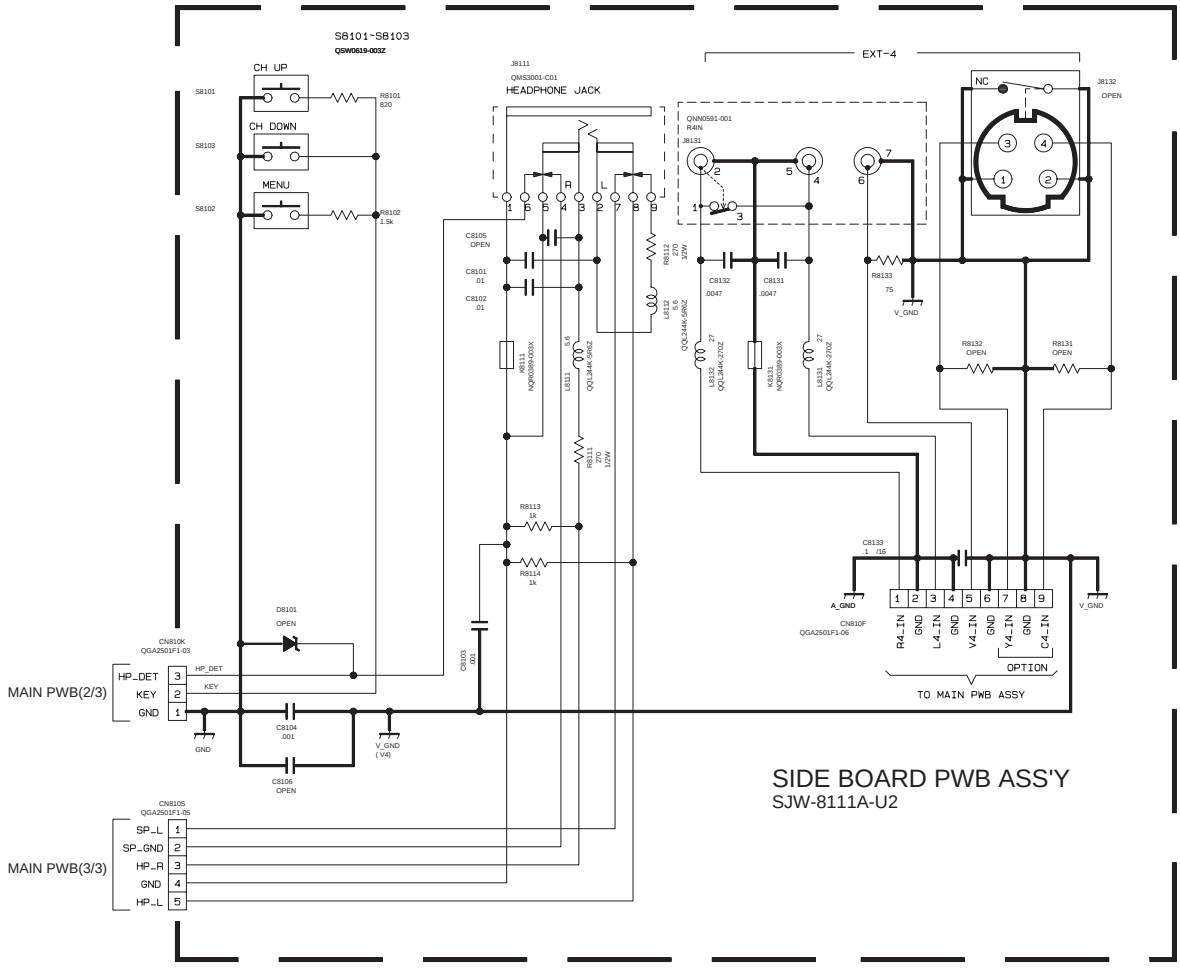
FRONT BOARD PWB CIRCUIT DIAGRAM



SIDE BOARD PWB CIRCUIT DIAGRAM



SIDE BOARD PWB ASS'Y
SJW-8111A-U2

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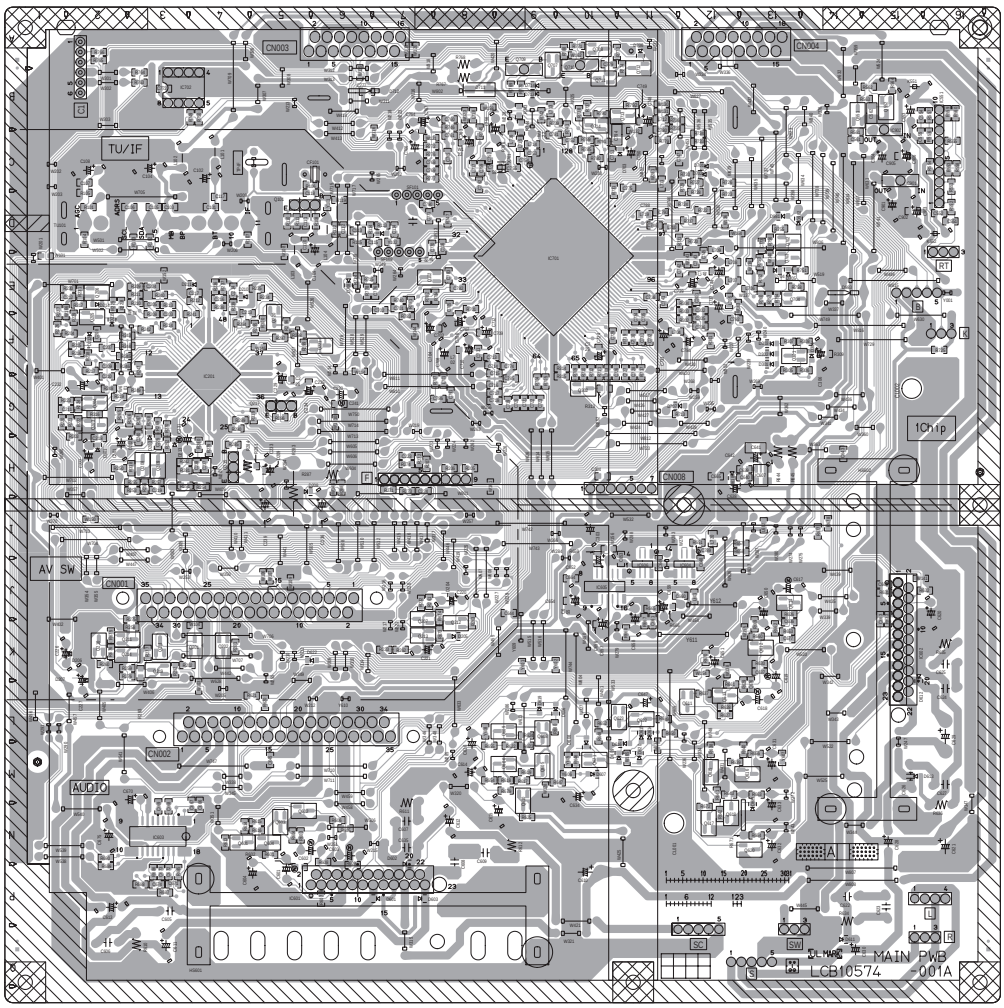
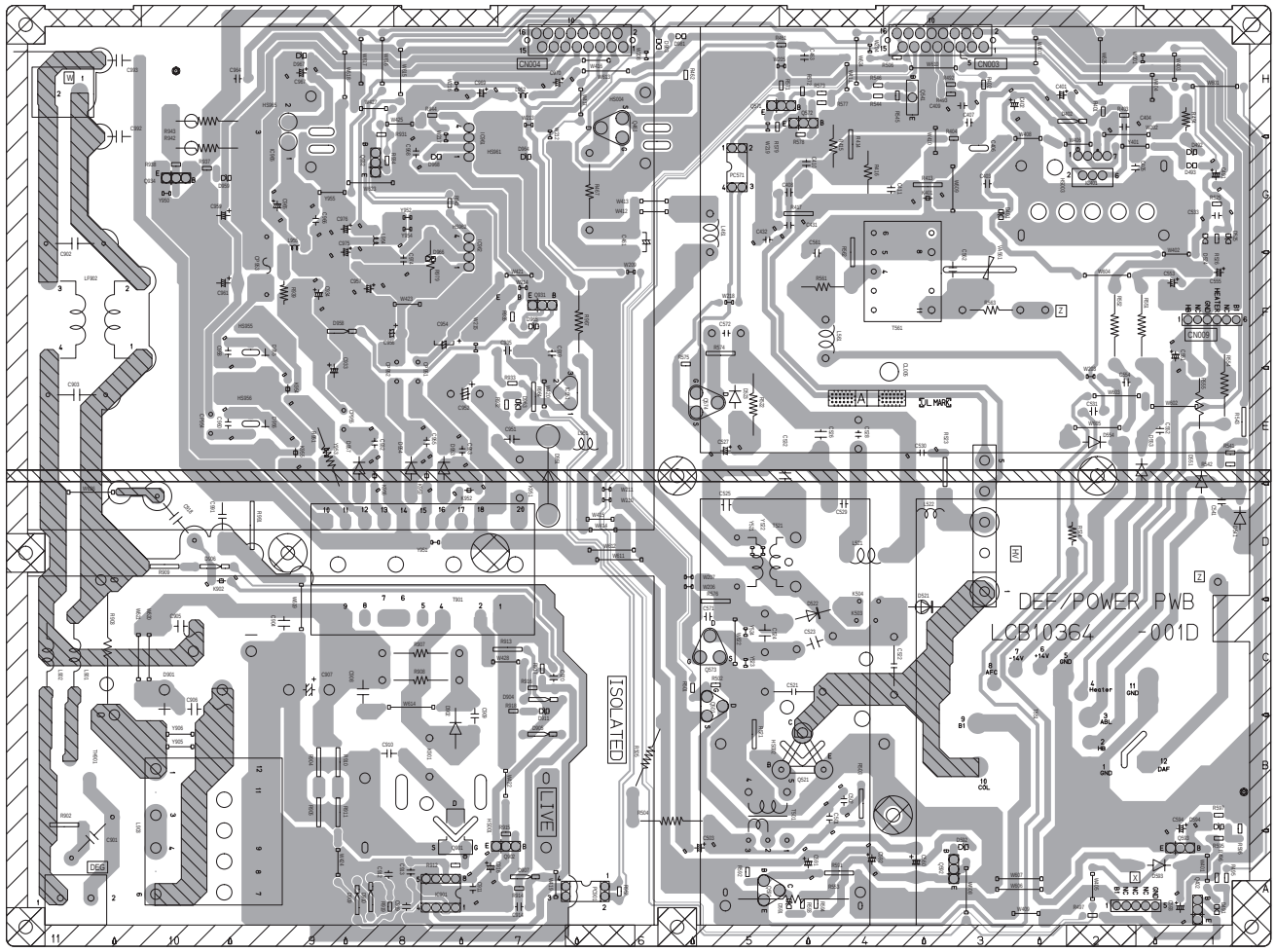
PATTERN DIAGRAMS

MAIN PWB PATTERN

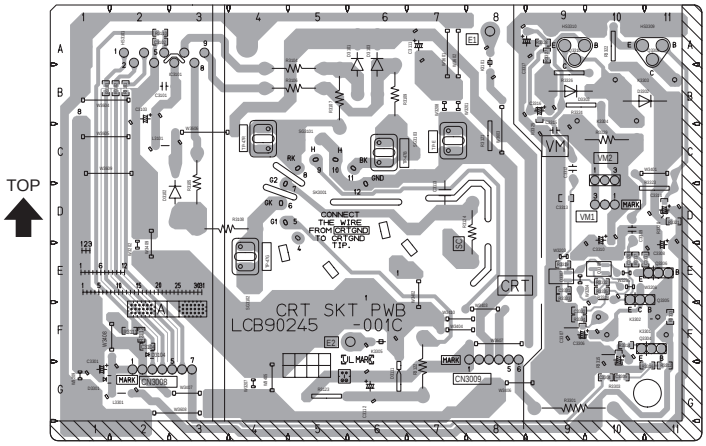


POWER & DEF PWB PATTERN

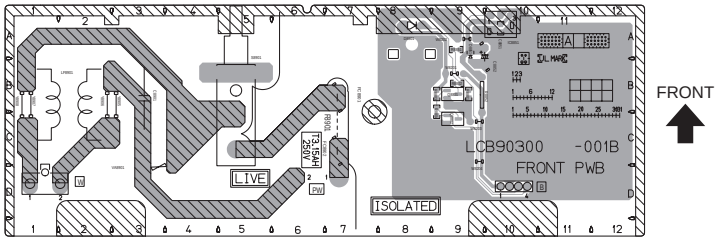
FRONT



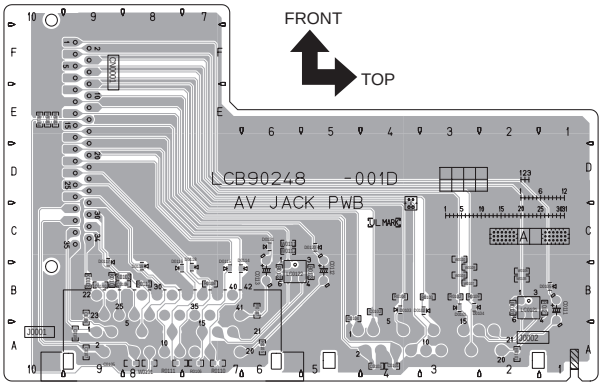
CRT SOCKET PWB PATTERN



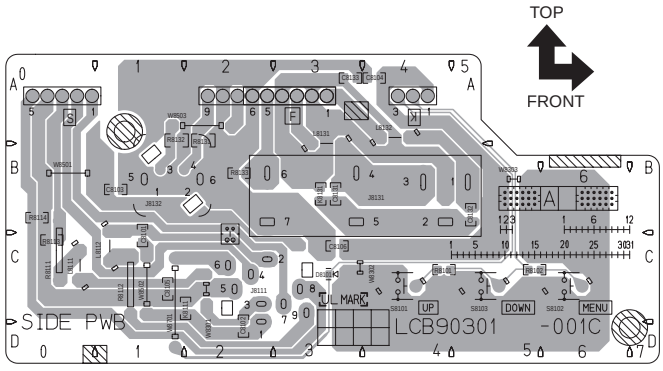
FRONT BOARD PWB PATTERN



AV JACK PWB PATTERN



SIDE BOARD PWB PATTERN



VOLTAGE CHARTS

<MAIN PWB>
[P.2-5 - P.2-6]

MODE PIN NO.	DC (V)
IC 701	
1	0
2	0
3	2
4	3.3
5	3.2
6	0
7	3.2
8	0
9	3.2
10	4.1
11	4.2
12	0
13	0
14	2.6
15	4.8
16	1.9
17	2.2
18	0
19	2.3
20	2.3
21	3.7
22	0.9
23	1
24	1.9
25	1.9
26	2.4
27	1.9
28	0
29	1.9
30	1.9
31	3
32	3.4
33	0
34	2.2
35	2.2
36	3.6
37	3.6
38	2.2
39	2
40	0
41	2.2
42	1.6
43	2.7
44	2.8
45	8.1
46	2
47	4.8
48	1.9
49	2.2
50	2.2
51	1.8
52	1.5
53	2.2
54	2.2
55	1.4
56	2.2
57	2.2
58	1.4
59	0
60	3.6
61	3.6
62	3.6
63	3.5
64	2
65	2
66	0.3
67	1.3
68	0
69	4.8
70	1.2
71	1.2
72	1.2
73	2
74	1.8
75	0
76	0
77	0
78	1.2
79	1.2
80	1.2
81	0
82	4.8
83	3.5
84	3.3
85	1.7
86	1.7
87	1.7
88	3.2
89	0
90	3.3
91	1.6
92	0
93	1.9
94	3.3
95	0
96	1.9

MODE PIN NO.	DC (V)
97	3.2
98	0
99	0
100	2
101	0.1
102	1.6
103	3.3
104	0
105	0
106	3.3
107	0.1
108	5.2
109	5.2
110	3.3
111	3.2
112	0
113	3.2
114	3.3
115	0.1
116	3.3
117	2
118	2
119	3.3
120	1.5
121	0
122	0
123	3.3
124	2
125	0
126	3.3
127	0
128	3.3
IC 702	
1	0
2	0
3	0
4	0
5	3.2
6	3.2
7	0
8	3.3
Q 101	
E	1.8
C	9
B	2.5
Q 102	
E	0
C	5.8
B	0
Q 301	
E	4.7
C	-2.5
B	4.8
Q 302	
E	1.3
C	4.5
B	2
Q 703	
E	0
C	4.5
B	0
Q 704	
E	4.1
C	4.8
B	4.8
Q 707	
E	2
C	2.8
B	2.5
Q 708	
E	2
C	2.7
B	2.5
Q 709	
E	3.5
C	2
B	2.8
Q 710	
E	3.5
C	2
B	2.8
Q 711	
E	0
C	3.3
B	0
Q 712	
E	4.6
C	0
B	4.8

MODE PIN NO.	DC (V)
TU 101	
1	2.1
2	1.8
3	0
4	3.2
5	2.1
6	4.8
7	4.8
8	NC
9	31.5
10	NC
11	0

[P.2-7 - P.2-8]

MODE PIN NO.	DC (V)
IC 201	
1	4
2	4.5
3	4
4	4.5
5	0
6	6.7
7	0
8	3.9
9	4.5
10	4
11	4.5
12	4.5
13	6.7
14	0
15	4.3
16	4.5
17	4
18	4.5
19	4.5
20	6.7
21	0
22	4.5
23	4.8
24	4.5
25	0
26	2.8
27	2.7
28	0.5
29	4.4
30	4.5
31	3.6
32	4.5
33	3.6
34	9
35	0
36	4.9
37	4.5
38	4.5
39	4.5
40	4.4
41	4.5
42	3.7
43	4.1
44	0
45	4.3
46	4.5
47	3.9
48	4.5
IC 902	
1	11.8
2	0
3	9.1
Q 201	
E	2.8
C	4
B	0
Q 202	
E	1.2
C	2
B	0
Q 207	
E	0
C	0
B	-1.7
Q 210	
E	0
C	-1.6
B	0
Q 211	
E	0
C	0
B	-1.6
Q 212	
E	0
C	-1.7
B	0
Q 213	
E	0
C	0
B	-1.7
Q 214	
E	0
C	0
B	-1.6
Q 215	
E	3.5
C	0
B	2.8
Q 217	
E	2.9
C	9
B	3.5
Q 218	
E	4
C	2.3
B	0

MODE PIN NO.	DC (V)
Q 219	
E	0
C	0
B	0.6
Q 220	
E	1.5
C	9
B	2.1
Q 221	
E	1.4
C	9
B	2

[P.2-9 - P.2-10]

MODE PIN NO.	DC (V)
IC 602	
1	0
2	0
3	0
4	0
5	30.2
6	0
7	0
8	0.7
9	0
10	1.2
11	0
12	0
13	15
14	0
15	1.2
16	0
17	0
18	0
19	31.2
20	14.9
21	0
22	0
23	14.9
IC 603	
1	4.5
2	4.5
3	4.5
4	2
5	4.5
6	2
7	0
8	4.5
9	0
10	2.1
11	2.3
12	9.1
13	4.5
14	4.5
15	4.5
16	4.5
17	4.5
18	4.5
Q 617	
E	0
C	2.8
B	0
Q 618	
E	0
C	0
B	0.6
Q 620	
E	0
C	16
B	0.1
Q 621	
E	4.6
C	-2.5
B	4.8
Q 622	
E	0
C	0.1
B	0.7

<CRT COCKET PWB>
[P.2-5 - P.2-6]

MODE PIN NO.	DC (V)
IC 3101	
1	1.8
2	1.8
3	1.7
4	0
5	4.4
6	208
7	146.5
8	143
9	145
Q 3304	
E	0.8
C	8.5
B	1.4
Q 3305	
E	8.7
C	11.8
B	8.5
Q 3306	
E	8.7
C	0
B	8.5
Q 3309	
E	132.7
C	67.6
B	131.9
Q 3310	
E	3.2
C	67.5
B	3.8

<POWER & DEF PWB>
[P.2-15 - P.2-16]

MODE PIN NO.	DC (V)
IC 401	
1	0.9
2	14.3
3	-12.7
4	-14.2
5	0.2
6	14
7	0.9
IC 901	
1	0
2	1.7
3	1.4
4	3.6
5	0
6	0
7	1.3
8	17.6
IC 951	
1	141
2	28.5
3	0
IC 961	
1	14.4
2	11.8
3	0
4	2.4
IC 962	
1	6.4
2	4.9
3	0
4	0.1
IC 965	
1	0
2	3.3
3	0
Q 402	
E	0
C	0
B	0.7
Q 501	
S	0
D	57
G	1.1
Q 521	
E	0
C	142
B	0
Q 541	
E	0
C	10
B	0
Q 571	
E	0
C	10.9
B	0
Q 572	
E	0
C	1.1
B	0
Q 573	
S	0
D	0
G	10.9
Q 574	
S	15
D	102
G	15.4
Q 591	
E	144.9
C	0
B	144.5
Q 592	
E	0
C	3.2
B	0
Q 593	
E	0
C	3.3
B	0.2
Q 901	
S	0
D	0.1
G	1.4
Q 902	
E	17.6
C	0
B	17.6
Q 931	
E	0
C	26.3
B	2.8
Q 932	
E	0
C	25
B	0.1

MODE PIN NO.	DC (V)
Q 934	
E	0
C	2.8
B	0.7

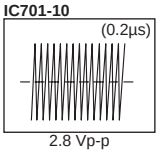
<FRONT BOARD PWB>
[P.2-17 - P.2-18]

MODE PIN NO.	DC (V)
IC 8851	
1	-0.1
2	0
3	0
Q 8801	
E	0
C	0.1
B	0.1
Q 8802	
E	0
C	0.1
B	0.1

WAVEFORMS

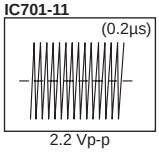
MAIN PWB(1/3)

IC701-10



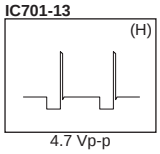
2.8 Vp-p

IC701-11



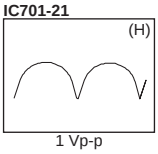
2.2 Vp-p

IC701-13



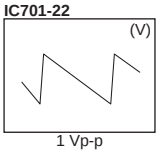
4.7 Vp-p

IC701-21



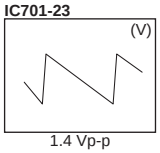
1 Vp-p

IC701-22



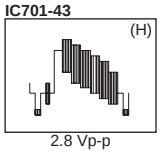
1 Vp-p

IC701-23



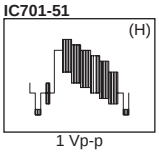
1.4 Vp-p

IC701-43



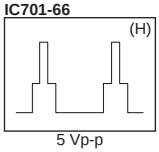
2.8 Vp-p

IC701-51



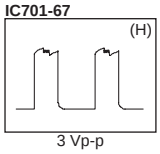
1 Vp-p

IC701-66



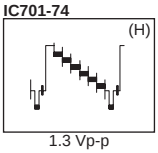
5 Vp-p

IC701-67



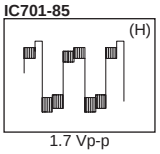
3 Vp-p

IC701-74



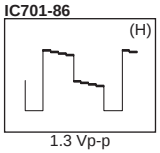
1.3 Vp-p

IC701-85



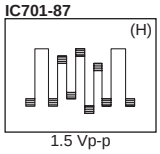
1.7 Vp-p

IC701-86



1.3 Vp-p

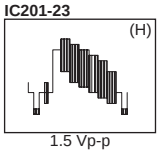
IC701-87



1.5 Vp-p

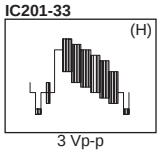
MAIN PWB(2/3)

IC201-23



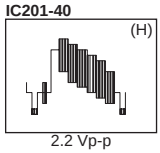
1.5 Vp-p

IC201-33



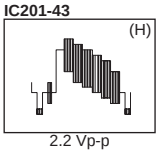
3 Vp-p

IC201-40



2.2 Vp-p

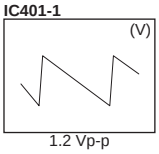
IC201-43



2.2 Vp-p

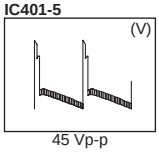
POWER & DEF PWB

IC401-1



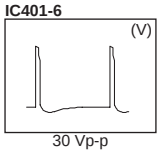
1.2 Vp-p

IC401-5



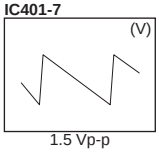
45 Vp-p

IC401-6



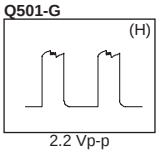
30 Vp-p

IC401-7



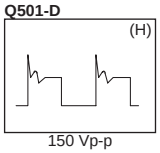
1.5 Vp-p

Q501-G



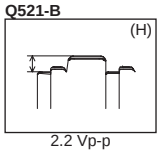
2.2 Vp-p

Q501-D



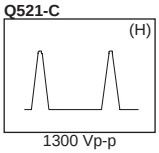
150 Vp-p

Q521-B



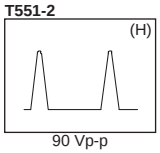
2.2 Vp-p

Q521-C



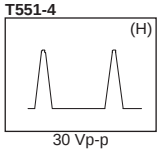
1300 Vp-p

T551-2



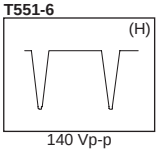
90 Vp-p

T551-4



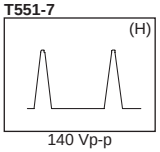
30 Vp-p

T551-6



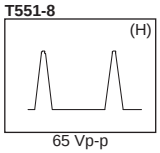
140 Vp-p

T551-7



140 Vp-p

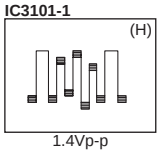
T551-8



65 Vp-p

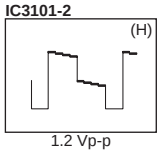
CRT SOCKET PWB

IC3101-1



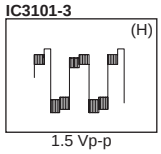
1.4Vp-p

IC3101-2



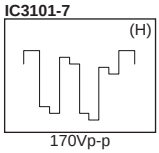
1.2 Vp-p

IC3101-3



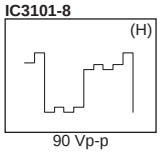
1.5 Vp-p

IC3101-7



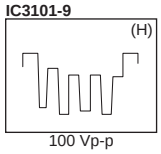
170Vp-p

IC3101-8



90 Vp-p

IC3101-9



100 Vp-p

JVC
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(No.YA261)

Printed in Japan
VPT

PARTS LIST

CAUTION

- The parts identified by the ⚠ symbol are important for the safety . Whenever replacing these parts, be sure to use specified ones to secure the safety.
- The parts not indicated in this Parts List and those which are filled with lines --- in the Parts No. columns will not be supplied.
- P.W. BOARD Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

RESISTORS	
CR	Carbon Resistor
FR	Fusible Resistor
PR	Plate Resistor
VR	Variable Resistor
HV R	High Voltage Resistor
MF R	Metal Film Resistor
MG R	Metal Glazed Resistor
MP R	Metal Plate Resistor
OM R	Metal Oxide Film Resistor
CMF R	Coating Metal Film Resistor
UNF R	Non-Flammable Resistor
CH V R	Chip Variable Resistor
CH MG R	Chip Metal Glazed Resistor
COMP. R	Composition Resistor
LPTC R	Linear Positive Temperature Coefficient Resistor

CAPACITORS	
C CAP.	Ceramic Capacitor
E CAP.	Electrolytic Capacitor
M CAP.	Mylar Capacitor
CH CAP.	Chip Capacitor
HV CAP.	High Voltage Capacitor
MF CAP.	Metalized Film Capacitor
MM CAP.	Metalized Mylar Capacitor
MP CAP.	Metalized Polystyrol Capacitor
PP CAP.	Polypropylene Capacitor
PS CAP.	Polystyrol Capacitor
TF CAP.	Thin Film Capacitor
MPP CAP.	Metalized Polypropylene Capacitor
TAN. CAP.	Tantalum Capacitor
CH C CAP.	Chip Ceramic Capacitor
BP E CAP.	Bi-Polar Electrolytic Capacitor
CH AL E CAP.	Chip Aluminum Electrolytic Capacitor
CH AL BP CAP.	Chip Aluminum Bi-Polar Capacitor
CH TAN. E CAP.	Chip Tantalum Electrolytic Capacitor
CH AL BP E CAP.	Chip Tantalum Bi-Polar Electrolytic Capacitor

RESISTORS									
F	G	J	K	M	N	R	H	Z	P
±1%	±2%	±5%	±10%	±20%	±30%	+30% -10%	+50% -10%	+80% -20%	+100% -0%

CONTENTS

USING P.W. BOARD & REMOTE CONTROL UNIT 3-2
EXPLODED VIEW PARTS LIST 3-3
EXPLODED VIEW 3-4

PRINTED WIRING BOARD PARTS LIST [AV-28T5SP, AV-28T5BR, AV-28T5SR] 3-5
MAIN P.W. BOARD ASS'Y (SJW-1012A-U2) 3-5
POWER & DEF P.W. BOARD ASS'Y (SJW-2012A-S2) 3-7
CRT SOCKET P.W. BOARD ASS'Y (SJW-3012A-U2) 3-9
FRONT CONTROL P.W. BOARD ASS'Y (SJW-8011A-U2) 3-9
SIDE CONTROL P.W. BOARD ASS'Y (SJW-8111A-U2) 3-10
AV JACK P.W. BOARD ASS'Y (SJW0J011A-U2) 3-10

PRINTED WIRING BOARD PARTS LIST [AV-28T5BK, AV-28T5SK] 3-11
MAIN P.W. BOARD ASS'Y (SJW-1912A-U2) 3-11
POWER & DEF P.W. BOARD ASS'Y (SJW-2012A-S2) 3-14
CRT SOCKET P.W. BOARD ASS'Y (SJW-3012A-U2) 3-14
FRONT CONTROL P.W. BOARD ASS'Y (SJW-8011A-U2) 3-14
SIDE CONTROL P.W. BOARD ASS'Y (SJW-8111A-U2) 3-14
AV JACK P.W. BOARD ASS'Y (SJW0J011A-U2) 3-14

REMOTE CONTROL UNIT PARTS LIST (RM-C1502) 3-14
REMOTE CONTROL UNIT PARTS LIST (RM-C1502B) 3-14
PACKING 3-15
PACKING PARTS LIST 3-15

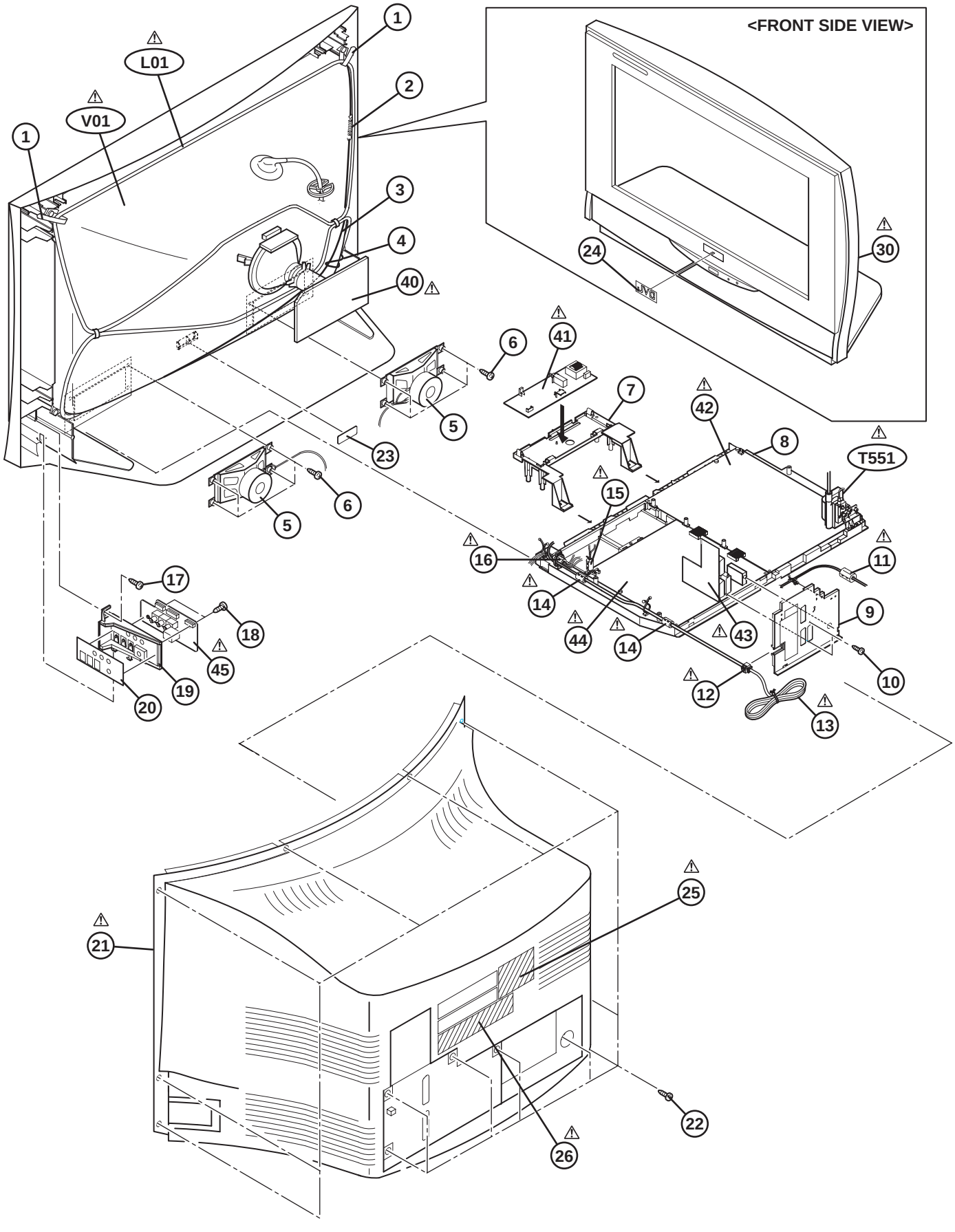
USING P.W. BOARD & REMOTE CONTROL UNIT

P.W.B ASS'Y	AV-28T5SP	AV-28T5BR	AV-28T5SR	AV-28T5BK	AV-28T5SK
MAIN P.W.B	SJW-1012A-U2	←	←	SJW-1912A-U2	←
POWER & DEF P.W.B	SJW-2012A-S2	←	←	←	←
CRT SOCKET P.W.B	SJW-3012A-U2	←	←	←	←
FRONT CONTROL P.W.B	SJW-8011A-U2	←	←	←	←
SIDE CONTROL P.W.B	SJW-8111A-U2	←	←	←	←
AV JACK P.W.B	SJW0J011A-U2	←	←	←	←
REMOTE CONTROL UNIT	RM-C1502-1C	RM-C1502B-1C	RM-C1502-1C	RM-C1502B-1C	RM-C1502-1C

EXPLODED VIEW PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
⚠	V01	W66QDE993X991	ITC		
⚠	L01	QQW0168-001	DEG COIL		
⚠	T551	QQH0183-001	FB TRANSF		
	1	LC30628-002A	DEG CLAMP	(x4)	
	2	LC32668-001A	SPRING		
	3	WJY0021-001B	BRAIDED ASSY		
	4	WJY0013-002A	E-BRAIDED ASSY		
	5	QAS0326-001	SPEAKER	SP01/SP02(x2)	
	6	QYSBSAG4016NA	TAP SCREW	M4 x 16mm(x8)	
	7	LC11795-001C-U	CONTROL BASE		
	8	LC11643-001A-U	CHASSIS BASE		
	9	LC11782-003A-U	AV TERMINAL BOARD		AV-28T5BK,AV-28T5BR
	9	LC11782-001B-U	AV TERMINAL BOARD		AV-28T5SK,AV-28T5SP,AV-28T5SR
	10	QYSBSF3012MA	TAP SCREW	M3 x 12mm(x2)	
⚠	11	QQR0491-001	FERRITE CORE		
⚠	12	LC21383-001C-U	POWER CORD CLAMP		
⚠	13	QMPK160-185-JC	POWER CORD(EU)	1.85m BLACK	AV-28T5SP
⚠	13	QMPN130-185-JC	POWER CORD(EK)	1.85m BLACK	AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR
⚠	14	QQR0491-001	FERRITE CORE	(x2)	AV-28T5BR,AV-28T5SP,AV-28T5SR
⚠	15	QQR0491-001	FERRITE CORE		
⚠	16	QQR0491-001	FERRITE CORE		
	17	QYSBSAG4016NA	TAP SCREW	M4 x 16mm	
	18	QYSBSFG3010ZA	TAP SCREW	M3 x 10mm(x2)	
	19	LC11825-002B-U	SIDE CONTROL BASE		
	20	LC32584-002A-C	CONTROL SHEET		
⚠	21	LC11707-003C-U	REAR COVER		AV-28T5BK,AV-28T5BR
⚠	21	LC11707-001C-U	REAR COVER		AV-28T5SK,AV-28T5SP,AV-28T5SR
	22	QYSBSAG4016NA	TAP SCREW	M4 x 16mm(x9)	
	23	LC33060-001C-C	WINDOW		
	24	LC41852-001A	JVC MARK ASSY		
⚠	25	LC30789-002B-U	WARNING LABEL		AV-28T5SP
⚠	26	LC11364-077A-U	RATING LABEL		AV-28T5BK
⚠	26	LC11364-078A-U	RATING LABEL		AV-28T5BR
⚠	26	LC11364-075A-U	RATING LABEL		AV-28T5SK
⚠	26	LC12098-003A-U	RATING LABEL		AV-28T5SP
⚠	26	LC11364-076A-U	RATING LABEL		AV-28T5SR
⚠	30	LC12186-002A-U	FRONT CABINET ASSY		AV-28T5BK,AV-28T5BR
⚠	30	LC12186-001A-U	FRONT CABINET ASSY		AV-28T5SK,AV-28T5SP,AV-28T5SR
⚠	40	SJW-3012A-U2	CRT SOCKET PWB		
⚠	41	SJW-8011A-U2	FRONT CONTROL PWB		
⚠	42	SJW-2012A-S2	POWER & DEF PWB		
⚠	43	SJW0J011A-U2	AV JACK PWB		
⚠	44	SJW-1912A-U2	MAIN PWB		AV-28T5BK,AV-28T5SK
⚠	44	SJW-1012A-U2	MAIN PWB		AV-28T5BR,AV-28T5SP,AV-28T5SR
⚠	45	SJW-8111A-U2	SIDE CONTROL PWB		

EXPLODED VIEW



PRINTED WIRING BOARD PARTS LIST [AV-28T5SP, AV-28T5BR, AV-28T5SR]

MAIN P.W. BOARD ASS'Y (SJW-1012A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC201	CXA2089Q-X	IC		
IC602	AN5277	IC		
IC603	BD3869AF-X	IC		
IC701	TDA12020-28T5SP	IC(MCU)	(SERVICE)	
IC702	ATF16-28T5SP	IC	(SERVICE)	
IC902	AN78L09-T	IC		
Q101	2SC5397/CD/-T	TRANSISTOR		
Q102	UN2212-X	DIGI TRANSISTOR		
Q201	2SC3928A/QR/-X	TRANSISTOR		
Q202	2SC3928A/QR/-X	TRANSISTOR		
Q207	UN2226-X	DIGI TRANSISTOR		
Q210	2SA1530A/QR/-X	TRANSISTOR		
Q211	UN2226-X	DIGI TRANSISTOR		
Q212	2SA1530A/QR/-X	TRANSISTOR		
Q213	UN2226-X	DIGI TRANSISTOR		
Q214	UN2226-X	DIGI TRANSISTOR		
Q215	KTA1267/YG/-T	TRANSISTOR		
Q217	KTC3199/YG/-T	TRANSISTOR		
Q218	2SC3928A/QR/-X	TRANSISTOR		
Q219	2SC3928A/QR/-X	TRANSISTOR		
Q220	2SC3928A/QR/-X	TRANSISTOR		
Q221	2SC3928A/QR/-X	TRANSISTOR		
Q301	2SA1530A/QR/-X	TRANSISTOR		
Q302	2SC3928A/QR/-X	TRANSISTOR		
Q617	2SC3928A/QR/-X	TRANSISTOR		
Q618	2SC3928A/QR/-X	TRANSISTOR		
Q620	UN2213-X	DIGI TRANSISTOR		
Q621	2SA1530A/QR/-X	TRANSISTOR		
Q622	2SC3928A/QR/-X	TRANSISTOR		
Q703	2SC3928A/QR/-X	TRANSISTOR		
Q704	2SC3928A/QR/-X	TRANSISTOR		
Q707	2SC3928A/QR/-X	TRANSISTOR		
Q708	2SC3928A/QR/-X	TRANSISTOR		
Q709	2SA562TM/Y/-T	TRANSISTOR		
Q710	2SA562TM/Y/-T	TRANSISTOR		
Q711	2SC3928A/QR/-X	TRANSISTOR		
Q712	2SA1530A/QR/-X	TRANSISTOR		
D101	1SS356-X	SI DIODE		
D201	MA8120/M/-X	Z DIODE		
D203	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
D204	MA8120/M/-X	Z DIODE		
D205	MA8120/M/-X	Z DIODE		
D206	MA8120/M/-X	Z DIODE		
D207	MA8120/M/-X	Z DIODE		
D208	MA8120/M/-X	Z DIODE		
D209	MA8120/M/-X	Z DIODE		
D211	MA8120/M/-X	Z DIODE		
D212	MA8120/M/-X	Z DIODE		
D213	MA8120/M/-X	Z DIODE		
D214	MA8120/M/-X	Z DIODE		
D215	MA8120/M/-X	Z DIODE		
D301	MA111-X	SI DIODE		
D302	MA111-X	SI DIODE		
D303	MA111-X	SI DIODE		
D304	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	
D607	MA111-X	SI DIODE		
D608	MA111-X	SI DIODE		
D609	MA111-X	SI DIODE		
D611	MA8330/L/-X	Z DIODE		
D613	MA8330/L/-X	Z DIODE		
D616	MA111-X	SI DIODE		
D621	MA8056/M/-X	Z DIODE		
D701	MA111-X	SI DIODE		
D702	1SS357-X	SB DIODE		
D704	MA8068/M/-X	Z DIODE		
D705	MA111-X	SI DIODE		
D706	MA111-X	SI DIODE		
D707	MA111-X	SI DIODE		
D708	MA111-X	SI DIODE		
D711	RB161L-40-X	SB DIODE		
D712	1N4003SG-T2	SI DIODE		
D713	UDZS2.0B-X	Z DIODE		
D714	UDZS2.0B-X	Z DIODE		
D981	MA111-X	SI DIODE		
D982	MA111-X	SI DIODE		
D983	1N4003SG-T2	SI DIODE		
C101	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C102	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C103	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C104	QETN1AM-108Z	E CAPACITOR	1000uF 10V M	
C107	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C108	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C110	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C111	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C113	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C114	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C115	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C116	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C117	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C118	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C203	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C204	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C205	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C207	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C208	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C209	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C210	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C213	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C214	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C216	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C217	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C218	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C220	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C222	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C223	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C224	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C226	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C227	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C228	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C229	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C230	QENC1EM-106Z	BP E CAPACITOR	10uF 25V M	
C231	QENC1EM-106Z	BP E CAPACITOR	10uF 25V M	
C232	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C233	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C234	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C235	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C236	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C237	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C238	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C239	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C240	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C241	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C301	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C302	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C303	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C304	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C305	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C306	QETN1AM-227Z	E CAPACITOR	220uF 10V M	
C617	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C619	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C620	QETN1HM-107Z	E CAPACITOR	100uF 50V M	
C621	QETM1VM-228	E CAPACITOR	2200uF 35V M	
C622	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	
C623	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	
C626	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	
C627	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	
C628	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C630	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C632	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C633	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C634	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C643	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C644	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C645	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C662	NDC31HJ-391X	C CAPACITOR	390pF 50V J	
C663	NDC31HJ-391X	C CAPACITOR	390pF 50V J	
C666	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C667	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C668	NCB31AK-105X	C CAPACITOR	1uF 10V K	
C669	NCB31AK-105X	C CAPACITOR	1uF 10V K	
C670	QETN1EM-226Z	E CAPACITOR	22uF 25V M	
C671	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C672	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C673	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C674	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C675	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C703	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C704	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C705	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C706	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C707	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C708	QETN1HM-106Z	E CAPACITOR	10uF 50V M	

⚠Ref No.	Part No.	Part Name	Description Local
C709	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C710	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C711	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C712	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C713	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C714	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C715	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C716	NCB31CK-103X	C CAPACITOR	0.01uF 16V K
C717	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C718	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C719	NCB31AK-474X	C CAPACITOR	0.47uF 10V K
C720	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C721	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C722	NCB31CK-103X	C CAPACITOR	0.01uF 16V K
C723	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C724	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C725	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C726	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C727	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C728	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C729	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C730	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C731	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C732	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C733	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C734	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C735	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C736	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C737	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C738	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C739	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C740	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C741	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C742	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C743	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C744	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C745	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C746	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C747	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C748	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C749	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C750	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C751	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C752	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C753	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C754	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C755	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C756	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C757	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J
C758	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J
C759	NCB30JK-225X	C CAPACITOR	2.2uF 6.3V K
C760	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C761	NCB31HK-682X	C CAPACITOR	6800pF 50V K
C762	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C763	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C764	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C765	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C766	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C767	NCB31HK-223X	C CAPACITOR	0.022uF 50V K
C768	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C769	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C770	NCB31CK-473X	C CAPACITOR	0.047uF 16V K
C771	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C772	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C775	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C776	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C777	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C779	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C780	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C781	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C782	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C783	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C784	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C788	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C790	NDC31HJ-2R0X	C CAPACITOR	2pF 50V J
C791	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C792	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C793	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C904	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C905	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C906	QETN1CM-107Z	E CAPACITOR	100uF 16V M
R101	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R102	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R103	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R104	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R105	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R106	NRSA63J-150X	MG RESISTOR	15Ω 1/16W J
R107	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R108	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R110	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R111	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J
R112	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R113	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R114	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R115	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R116	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R119	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R201	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R202	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R208	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R209	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R210	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R211	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R212	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R213	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R214	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R215	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R216	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R217	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R218	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R220	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R221	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R222	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R226	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R227	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R229	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R232	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R233	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R234	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R235	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R236	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R237	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R238	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R239	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R240	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R241	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R242	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R243	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R244	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R245	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R246	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R247	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R249	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R251	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R253	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R255	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R258	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R259	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R260	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R261	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R262	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R263	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R264	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R265	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R266	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R267	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R268	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R269	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R270	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R271	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R272	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R273	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R274	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R275	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R276	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R277	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R279	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R280	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R281	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R282	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R283	QRG01GJ-101	OMF RESISTOR	100Ω 1W J
R284	QRK126J-181X	UNF C RESISTOR	180Ω 1/2W J
R285	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R286	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R287	QRK126J-151X	UNF C RESISTOR	150Ω 1/2W J
R288	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R289	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R290	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R291	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R292	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R293	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R295	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R296	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J

⚠Ref No.	Part No.	Part Name	Description	Local
R297	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R298	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R299	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R300	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R301	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R302	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R303	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R304	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R305	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R306	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R307	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J	
R308	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R313	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R314	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R316	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R317	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R318	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R319	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R629	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R631	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R633	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R634	QRK126J-2R2X	UNF C RESISTOR	2.2Ω 1/2W J	
R636	QRK126J-2R2X	UNF C RESISTOR	2.2Ω 1/2W J	
R641	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R642	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R646	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R647	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R648	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R649	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J	
R650	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R653	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R663	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J	
R664	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J	
R669	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R670	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R671	QRE121J-562Y	C RESISTOR	5.6kΩ 1/2W J	
R672	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R673	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R674	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R675	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R676	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R685	NRSA63J-394X	MG RESISTOR	390kΩ 1/16W J	
R686	NRSA63J-394X	MG RESISTOR	390kΩ 1/16W J	
R687	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R688	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J	
R689	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R690	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R701	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J	
R709	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R710	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R711	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R712	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R713	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J	
R714	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J	
R715	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R717	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R719	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R720	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R721	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R724	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R725	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R726	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R727	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R728	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R729	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R730	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R731	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R733	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R735	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R736	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R737	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R738	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R739	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
R740	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R741	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R742	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R743	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R744	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R745	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R746	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J	
R747	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J	
R749	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R750	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R751	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R752	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R753	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R754	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J	
R757	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R758	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R760	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R763	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R764	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R765	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R766	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J	
R767	QRK126J-3R9X	UNF C RESISTOR	3.9Ω 1/2W J	
R768	QRK126J-3R9X	UNF C RESISTOR	3.9Ω 1/2W J	
R769	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R770	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R771	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
R772	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R773	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R774	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J	
R776	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R777	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R778	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R779	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J	
R780	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J	
R782	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
R784	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
R786	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J	
R787	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R788	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J	
L101	QQL244K-100Z	PEAKING COIL	10uH K	
L102	QQL244K-270Z	PEAKING COIL	27uH K	
L103	QQL244K-4R7Z	PEAKING COIL	4.7uH K	
L104	QQL244K-1R5Z	COIL	1.5uH K	
L701	NQR0199-004X	FERRITE BEADS		
L702	NQR0199-001X	FERRITE BEADS		
L703	NQR0199-004X	FERRITE BEADS		
L704	NQR0199-004X	FERRITE BEADS		
L705	NQR0199-004X	FERRITE BEADS		
L706	NQR0199-004X	FERRITE BEADS		
L707	NQR0199-004X	FERRITE BEADS		
L708	NQR0199-004X	FERRITE BEADS		
L709	NQR0199-004X	FERRITE BEADS		
L710	NQR0199-004X	FERRITE BEADS		
L711	NQR0199-004X	FERRITE BEADS		
L712	NQR0199-004X	FERRITE BEADS		
L713	NQR0199-004X	FERRITE BEADS		
L714	NQR0199-004X	FERRITE BEADS		
L715	NQR0199-004X	FERRITE BEADS		
L716	NQR0199-004X	FERRITE BEADS		
L717	NQR0199-004X	FERRITE BEADS		
L718	NQR0199-004X	FERRITE BEADS		
CF101	QAX0619-001	C TRAP	40.40MHz	
CN001	QGB1505J1-35	CONNECTOR	B-B (1-35)	
CN003	QGB1506L1-16	CONNECTOR	B-B (1-16)	
CN004	QGB1506L1-16	CONNECTOR	B-B (1-16)	
CN00B	QJB003-042424	SIN ID C-B WIRE		
CN00K	QJK002-034023	SIN CR C-B WIRE		
CN00S	QJK002-053620	SIN CR C-B WIRE		
SF101	QAX0531-001	SAW FILTER		
SF102	QAX0621-001	SAW FILTER		
TU101	QAU0373-001	TUNER		
X701	QAX0799-001Z	CRYSTAL		

POWER & DEF P.W. BOARD ASS'Y (SJW-2012A-S2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC401	LA78041	IC		
IC901	ICE1QS01	IC		
IC951	SE140N	IC		
IC961	PQ120RDA1SZ	IC		
IC962	PQ050RDA1SZ	IC		
IC965	BA033T	REGULATOR IC		
Q402	KTC3199/YG/-T	TRANSISTOR		
Q461	RDN050N20	POWER MOS FET		
Q501	BSN304-T	MOS FET		
⚠Q521	2SC5902-RL	POW TRANSISTOR	H. OUT	
Q541	KTC3199/YG/-T	TRANSISTOR		
Q571	DTC124ESA-T	DIGI TRANSISTOR		
Q572	KTC3199/YG/-T	TRANSISTOR		
Q573	RDN050N20	POWER MOS FET		
Q574	RDN050N20	POWER MOS FET		
Q591	2SA1208/ST/Z1-T	TRANSISTOR		
Q592	DTC124ESA-T	DIGI TRANSISTOR		
Q593	KTC3199/YG/-T	TRANSISTOR		

⚠Ref No.	Part No.	Part Name	Description Local
Q901	STP13NK60ZFP	POWER MOS FET	
Q902	KTA1267/YG/-T	TRANSISTOR	
Q931	KTC3199/YG/-T	TRANSISTOR	
Q932	DTC124ESA-T	DIGI TRANSISTOR	
Q934	KTC3199/YG/-T	TRANSISTOR	
D402	1SR35-400A-T2	SI DIODE	
D491	1SS133-T2	SI DIODE	
D492	MTZJ22B-T2	Z DIODE	
D493	1SS133-T2	SI DIODE	
D521	RH3G-F1	SI DIODE	
D522	RU4AM-LFT2	SI DIODE	
D523	FR105GT-T3	SI DIODE	
D525	MTZJ5.1B-T2	Z DIODE	
D541	FR105GT-T3	SI DIODE	
D551	FR105GT-T3	SI DIODE	
D553	FR105GT-T3	SI DIODE	
D554	FR105GT-T3	SI DIODE	
D592	MTZJ7.5B-T2	Z DIODE	
D593	FR105GT-T3	SI DIODE	
D594	MTZJ7.5S-T2	Z DIODE	
D901	D3SBA60	DIODE	
D902	FR107GT-T3	SI DIODE	
D904	1SR35-400A-T2	SI DIODE	
D905	1SR35-400A-T2	SI DIODE	
D906	1SR35-400A-T2	SI DIODE	
D907	1SR35-400A-T2	SI DIODE	
D911	MTZJ18C-T2	Z DIODE	
D951	RU4AM-F1	SI DIODE	
D953	FR105GT-T3	SI DIODE	
D954	FR105GT-T3	SI DIODE	
D955	FSF05A20	SI DIODE	
D957	FR105GT-T3	SI DIODE	
D958	1SR35-400A-T2	SI DIODE	
D963	MTZJ3.9B-T2	Z DIODE	
D964	MTZJ33B-T2	Z DIODE	
D965	MTZJ4.7B-T2	Z DIODE	
D967	MTZJ5.6B-T2	Z DIODE	
D981	1SS133-T2	SI DIODE	
D983	1SS133-T2	SI DIODE	
C401	QEHR1VM-227Z	E CAPACITOR	220uF 35V M
C402	QETM1VM-108	E CAPACITOR	1000uF 35V M
C405	QFLC1HJ-472Z	M CAPACITOR	4700pF 50V J
C406	QCZ0337-180Z	C CAPACITOR	18pF 2kV J
C408	QFVF1HJ-334Z	MF CAPACITOR	0.33uF 50V J
C409	QDC31HJ-470Z	C CAPACITOR	47pF 50V J
C410	QFVF1HJ-334Z	MF CAPACITOR	0.33uF 50V J
C411	QFLC2AJ-104Z	M CAPACITOR	0.1uF 100V J
C461	QEZ0195-475Z	BP E CAPACITOR	4.7uF 50V M
C491	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C502	QCB32HK-681Z	C CAPACITOR	680pF 500V K
C503	QEHR2CM-105Z	E CAPACITOR	1uF 160V M
C521	QFZ0196-302	MPP CAPACITOR	3000pF 1.5kV H
C522	QFZ0196-113	MPP CAPACITOR	0.011uF 1.5kV H
C523	QFP32GJ-223	PP CAPACITOR	0.022uF 400V J
C524	QFM72DK-104	M CAPACITOR	0.1uF 200V K
C526	QFZ0197-254	MPP CAPACITOR	0.25uF 250V J
C527	QEHR2EM-475Z	E CAPACITOR	4.7uF 250V M
C529	QFM72DK-393	M CAPACITOR	0.039uF 200V K
C530	QCB32HK-561Z	C CAPACITOR	560pF 500V K
C531	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J
C533	QCS32HJ-560Z	C CAPACITOR	56pF 500V J
C541	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C551	QETN2EM-106Z	E CAPACITOR	10uF 250V M
C552	QCB32HK-152Z	C CAPACITOR	1500pF 500V K
C553	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M
C554	QCB32HK-152Z	C CAPACITOR	1500pF 500V K
C555	QEHR1EM-108Z	E CAPACITOR	1000uF 25V M
C560	QETM2CM-227	E CAPACITOR	220uF 160V M
C572	QFZ0197-124	MPP CAPACITOR	0.12uF 250V J
C591	QETN1AM-107Z	E CAPACITOR	100uF 10V M
C592	QETN1EM-476Z	E CAPACITOR	47uF 25V M
C593	QETN2AM-106Z	E CAPACITOR	10uF 100V M
C594	QETN1AM-227Z	E CAPACITOR	220uF 10V M
⚠C901	QFZ9075-473	MPP CAPACITOR	0.047uF AC275V M
⚠C903	QFZ9072-104	MM CAPACITOR	0.1uF AC250V K
⚠C904	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C905	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
⚠C906	QCZ9054-472	C CAPACITOR	4700pF AC250V Z
C907	QEZ0649-227	E CAPACITOR	220uF 400V M
C908	QCB32HK-103	C CAPACITOR	0.01uF 500V K
C909	QCZ0122-561	C CAPACITOR	560pF 2kV K
C910	QCZ0122-391	C CAPACITOR	390pF 2kV K
C911	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C912	QFLC1HJ-681Z	M CAPACITOR	680pF 50V J
C913	QDC31HJ-820Z	C CAPACITOR	82pF 50V J

⚠Ref No.	Part No.	Part Name	Description Local
C914	QFLC2AJ-683Z	M CAPACITOR	0.068uF 100V J
C916	QETN1EM-107Z	E CAPACITOR	100uF 25V M
⚠C918	QFZ9080-104	M F CAPACITOR	0.1uF
C919	QFLC1HJ-102Z	M CAPACITOR	1000pF 50V J
C920	QDC31HJ-150Z	C CAPACITOR	15pF 50V J
C933	QETM1VM-338	E CAPACITOR	3300uF 35V M
C951	QCZ0122-561	C CAPACITOR	560pF 2kV K
C952	QEZ0203-227	E CAPACITOR	220uF 160V M
C953	QCB32HK-391Z	C CAPACITOR	390pF 500V K
C954	QTMM1EM-228	E CAPACITOR	2200uF 25V M
C955	QCB32HK-391Z	C CAPACITOR	390pF 500V K
C956	QTMM1CM-228	E CAPACITOR	2200uF 16V M
C959	QETM1VM-338	E CAPACITOR	3300uF 35V M
C964	QFVF1HJ-684Z	MF CAPACITOR	0.68uF 50V J
C965	QETN1VM-477Z	E CAPACITOR	470uF 35V M
C966	QCB31HK-103Z	C CAPACITOR	0.01uF 50V K
C967	QETN1AM-227Z	E CAPACITOR	220uF 10V M
C968	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C969	QEHR1CM-477Z	E CAPACITOR	470uF 16V M
C970	QEHR1CM-107Z	E CAPACITOR	100uF 16V M
C974	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C975	QETN1AM-227Z	E CAPACITOR	220uF 10V M
C976	QETN1EM-476Z	E CAPACITOR	47uF 25V M
⚠C991	QCZ9079-332	C CAPACITOR	3300pF AC250V M
R401	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R402	QRE141J-101Y	C RESISTOR	100Ω 1/4W J
R403	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R404	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R414	QRE121J-5R6Y	C RESISTOR	5.6Ω 1/2W J
R415	QRX01GJ-1R8	MF RESISTOR	1.8Ω 1W J
R416	QRG01GJ-820	OMF RESISTOR	82Ω 1W J
R417	QRE121J-100Y	C RESISTOR	10Ω 1/2W J
R461	QRE141J-331Y	C RESISTOR	330Ω 1/4W J
R462	QRE141J-823Y	C RESISTOR	82kΩ 1/4W J
R467	QRL039J-120	OMF RESISTOR	12Ω 3W J
R492	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J
R493	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J
R494	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R495	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R496	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J
R497	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J
R501	QRE141J-561Y	C RESISTOR	560Ω 1/4W J
R502	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R503	QRE121J-152Y	C RESISTOR	1.5kΩ 1/2W J
R504	QRL039J-222	OMF RESISTOR	2.2kΩ 3W J
R505	QRL039J-222	OMF RESISTOR	2.2kΩ 3W J
R506	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R521	QRE121J-150Y	C RESISTOR	15Ω 1/2W J
R522	QRL039J-103	OMF RESISTOR	10kΩ 3W J
R523	QRE121J-471Y	C RESISTOR	470Ω 1/2W J
⚠R524	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J
R525	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R541	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J
R542	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J
R543	QRE121J-272Y	C RESISTOR	2.7kΩ 1/2W J
R544	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J
R545	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R546	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J
R551	QRT039J-1R5	MF RESISTOR	1.5Ω 3W J
R552	QRT039J-1R5	MF RESISTOR	1.5Ω 3W J
R553	QRF104K-5R6	UNF WW RESISTOR	5.6Ω 10W K
⚠R554	QRZ9021-4R7	FUSI RESISTOR	4.7Ω 1W J
⚠R555	QRZ9011-4R7	FUSI RESISTOR	4.7Ω 1/2W J
R571	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R572	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R573	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J
R574	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J
R575	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J
R576	QRE121J-124Y	C RESISTOR	120kΩ 1/2W J
R577	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J
R591	QRE121J-123Y	C RESISTOR	12kΩ 1/2W J
R592	QRA14CF-1201Y	CMF RESISTOR	1.2kΩ 1/4W F
R593	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J
R594	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J
R595	QRA14CF-1962Y	CMF RESISTOR	19.6kΩ 1/4W F
R596	QRA14CF-2671Y	CMF RESISTOR	2.67kΩ 1/4W F
R597	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J
R902	QRE121J-331Y	C RESISTOR	330Ω 1/2W J
R903	QRF104K-3R9	UNF WW RESISTOR	3.9Ω 10W K
R904	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R905	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J
R907	QRL039J-823	OMF RESISTOR	82kΩ 3W J
R908	QRL039J-823	OMF RESISTOR	82kΩ 3W J
R909	QRE121J-185Y	C RESISTOR	1.8MΩ 1/2W J
R910	QRE121J-334Y	C RESISTOR	330kΩ 1/2W J
R911	QRE121J-394Y	C RESISTOR	390kΩ 1/2W J

⚠Ref No.	Part No.	Part Name	Description	Local
R912	QRE141J-470Y	C RESISTOR	47Ω 1/4W J	
R913	QRE121J-330Y	C RESISTOR	33Ω 1/2W J	
R914	QRE141J-474Y	C RESISTOR	470kΩ 1/4W J	
R915	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R916	QRE141J-823Y	C RESISTOR	82kΩ 1/4W J	
R917	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R918	QRE141J-120Y	C RESISTOR	12Ω 1/4W J	
R931	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R934	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R935	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
R937	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
R938	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	
⚠R939	QRZ9017-4R7	FUSI RESISTOR	4.7Ω 1/4W J	
R941	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R942	QRL039J-102	OMF RESISTOR	1kΩ 3W J	
R943	QRL039J-102	OMF RESISTOR	1kΩ 3W J	
R944	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R952	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R964	QRE121J-222Y	C RESISTOR	2.2kΩ 1/2W J	
R967	QRL039J-223	OMF RESISTOR	22kΩ 3W J	
⚠R991	QRZ9046-825Z	C RESISTOR	8.2MΩ 1/2W K	
L461	QQLZ036-821	COIL	820uH K	
L521	QQR1422-003	CHOKE COIL		
L522	QQR1106-002	LINEARITY COIL		
L901	QQL402K-100	CHOKE COIL	10uH K	
L902	QQL402K-100	CHOKE COIL	10uH K	
⚠L903	QQR1200-001	CHOKE COIL		
L951	QQLZ026-460	COIL	46uH ±7%	
L952	QQL26AK-820Z	CHOKE COIL	82uH K	
L954	QQL26AM-5R6Z	CHOKE COIL	5.6uH M	
L955	QQL26AK-220Z	CHOKE COIL	22uH K	
T501	QQR1414-001	DRIVE TRANSF		
⚠T901	QQS0262-001	SW TRANSF		
CN003	QGB1506M1-16	CONNECTOR	B-B (1-16)	
CN004	QGB1506M1-16	CONNECTOR	B-B (1-16)	
CN0HV	CHC802T-05N-J	LV CONNECTOR		
⚠CP951	ICP-N50-Y	IC PROTECTOR	2.0A	
⚠CP952	ICP-N50-Y	IC PROTECTOR	2.0A	
⚠CP953	QMFZ049-4R0Z-E	FUSE	4A 125V	
⚠CP955	ICP-N75-Y	IC PROTECTOR	2.7A	
K401	QQR0621-002Z	FERRITE BEADS		
K503	QQR0582-001Z	FERRITE BEADS		
K504	QQR0582-001Z	FERRITE BEADS		
K901	QQR1113-001Z	FERRITE BEADS		
K902	QQR0621-002Z	FERRITE BEADS		
K951	QQR0872-001Y	FERRITE BEADS		
K952	QQR0621-002Z	FERRITE BEADS		
K953	QQR0621-002Z	FERRITE BEADS		
K954	QQR0621-002Z	FERRITE BEADS		
K956	QQR0621-002Z	FERRITE BEADS		
⚠LF902	QQR1095-001	LINE FILTER		
⚠PC571	PC123Y22FZ	PHOTO COUPLER		
⚠PC901	PC123Y22FZ	PHOTO COUPLER		
TH901	CEKP002-003	W POSISTOR		

CRT SOCKET P.W. BOARD ASS'Y (SJW-3012A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC3101	TDA6107AJF/N1	IC		
Q3304	KTC3199/YG/-T	TRANSISTOR		
Q3305	KTC3199/YG/-T	TRANSISTOR		
Q3306	KTA1267/YG/-T	TRANSISTOR		
Q3309	2SA1837	POW TRANSISTOR		
Q3310	2SC4793	POW TRANSISTOR		
D3101	FR105GT-T3	SI DIODE		
D3102	FR105GT-T3	SI DIODE		
D3103	FR105GT-T3	SI DIODE		
D3111	1SR35-400A-T2	SI DIODE		
D3301	MA8150/M/-X	Z DIODE		
D3302	FR105GT-T3	SI DIODE		
D3303	FR105GT-T3	SI DIODE		
C3101	QFK62EK-104Z	MM CAPACITOR	0.1uF 250V K	
C3102	NDC31HJ-101X	C CAPACITOR	100pF 50V J	
C3103	QETN2EM-475Z	E CAPACITOR	4.7uF 250V M	
C3111	QETM2EM-336	E CAPACITOR	33uF 250V M	
C3112	QETM2EM-106	E CAPACITOR	10uF 250V M	
C3113	QCZ0131-222	C CAPACITOR	2200pF 2kV K	
C3301	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C3304	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C3306	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C3307	NDC31HJ-150X	C CAPACITOR	15pF 50V J	
C3308	QETN2CM-106Z	E CAPACITOR	10uF 160V M	
C3309	QCB32HK-472Z	C CAPACITOR	4700pF 500V K	
C3310	QETN2CM-106Z	E CAPACITOR	10uF 160V M	
C3312	QCB32HK-472Z	C CAPACITOR	4700pF 500V K	
C3314	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C3315	QCS32HJ-680Z	C CAPACITOR	68pF 500V J	
C3316	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C3317	QETN1AM-337Z	E CAPACITOR	330uF 10V M	
R3101	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3102	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3103	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J	
R3104	QRC121K-561Z	COMP RESISTOR	560Ω 1/2W K	
R3105	QRC121K-561Z	COMP RESISTOR	560Ω 1/2W K	
R3106	QRC121K-561Z	COMP RESISTOR	560Ω 1/2W K	
R3107	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	
R3108	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	
R3109	QRZ0107-152Z	C RESISTOR	1.5kΩ 1/2W K	
R3110	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3121	QRE121J-474Y	C RESISTOR	470kΩ 1/2W J	
R3122	QRZ0107-102Z	C RESISTOR	1kΩ 1/2W K	
R3123	QRE121J-105Y	C RESISTOR	1MΩ 1/2W J	
R3124	QRZ0107-474Z	C RESISTOR	470kΩ 1/2W K	
⚠R3301	QRZ9021-561	FUSI RESISTOR	560Ω 1W J	
R3303	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3312	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J	
R3313	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R3314	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J	
R3315	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J	
R3316	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J	
R3317	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3318	QRJ146J-100X	UNF C RESISTOR	10Ω 1/4W J	
R3319	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J	
R3320	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R3321	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J	
R3322	QRE121J-2R7Y	C RESISTOR	2.7Ω 1/2W J	
R3323	QRE121J-563Y	C RESISTOR	56kΩ 1/2W J	
R3324	QRE121J-563Y	C RESISTOR	56kΩ 1/2W J	
R3325	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J	
R3326	QRE121J-2R7Y	C RESISTOR	2.7Ω 1/2W J	
R3327	NRSA63J-390X	MG RESISTOR	39Ω 1/16W J	
R3328	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J	
R3329	QRL029J-391	OMF RESISTOR	390Ω 2W J	
L3101	QQL244J-5R6Z	COIL	5.6uH J	
L3301	QQL244J-391Z	PEAKING COIL	390uH J	
CN3008	QJK002-073622	SIN CR C-B WIRE		
CN3009	QJK002-062611	SIN CR C-B WIRE		
CN30E2	CE41507-001P	LV CONNECTOR		
CN30SC	QGZ0017C1-01Z	CONNECTOR	(1-1)	
K3301	CE41492-001Z	CHOKE COIL		
K3302	CE41492-001Z	CHOKE COIL		
K3303	CE41492-001Z	CHOKE COIL		
K3304	CE41492-001Z	CHOKE COIL		
K3305	QQR0621-002Z	FERRITE BEADS		
SG3101	QAF0056-501Z	SURGE ABSORBER	500V M	
SG3102	QAF0056-501Z	SURGE ABSORBER	500V M	
SG3103	QAF0056-501Z	SURGE ABSORBER	500V M	
⚠SK3001	QNZ0536-001	CRT SOCKET		

FRONT CONTROL P.W. BOARD ASS'Y (SJW-8011A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC8851	RPM7238-H5	IR DETECT UNIT		
Q8801	UN2212-X	DIGI TRANSISTOR		
Q8802	UN2212-X	DIGI TRANSISTOR		
D8801	LH22440-T16	LED	POWER	
C8851	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C8852	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
⚠C8901	QFZ9072-474	MM CAPACITOR	0.47uF AC250V K	
R8801	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J	
R8802	NRSA63J-561X	MG RESISTOR	560Ω 1/16W J	
R8803	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J	

⚠Ref No.	Part No.	Part Name	Description	Local
R8851	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R8852	QRE121J-470Y	C RESISTOR	47Ω 1/2W J	
CN800W	WJK0200-008A-E	E-SI C WIRE C-B		
⚠F8901	QMF51D2-3R15-J1	FUSE	3.15A AC250V	
⚠LF8901	QQR1095-001	LINE FILTER		
⚠S8901	QSW0824-001	PUSH SWITCH	POWER	

SIDE CONTROL P.W. BOARD ASS'Y (SJW-8111A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
C8101	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C8102	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C8103	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C8104	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C8131	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C8132	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C8133	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
R8101	NRSA63J-821X	MG RESISTOR	820Ω 1/16W J	
R8102	NRSA63J-152X	MG RESISTOR	1.5kΩ 1/16W J	
R8111	QRE121J-271Y	C RESISTOR	270Ω 1/2W J	
R8112	QRE121J-271Y	C RESISTOR	270Ω 1/2W J	
R8113	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R8114	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R8133	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
L8111	QQL244K-5R6Z	PEAKING COIL	5.6uH K	
L8112	QQL244K-5R6Z	PEAKING COIL	5.6uH K	
L8131	QQL244K-270Z	PEAKING COIL	27uH K	
L8132	QQL244K-270Z	PEAKING COIL	27uH K	
J8111	QMS3001-C01	3.5 JACK	HEADPHONE	
J8131	QNN0591-001	PIN JACK	EXT-4	
K8111	NQR0389-003X	FERRITE BEADS		
K8131	NQR0389-003X	FERRITE BEADS		
S8101	QSW0619-003Z	TACT SWITCH	VOL UP	
S8102	QSW0619-003Z	TACT SWITCH	MENU	
S8103	QSW0619-003Z	TACT SWITCH	VOL DOWN	

AV JACK P.W. BOARD ASS'Y (SJW0J011A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
D0101	MA8056/M/-X	Z DIODE		
D0102	MA8056/M/-X	Z DIODE		
D0103	MA8056/M/-X	Z DIODE		
D0104	MA8056/M/-X	Z DIODE		
D0115	MA8056/M/-X	Z DIODE		
D0116	MA8056/M/-X	Z DIODE		
D0117	MA8056/M/-X	Z DIODE		
D0118	MA8056/M/-X	Z DIODE		
D0119	MA8056/M/-X	Z DIODE		
C0101	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0102	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0103	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0104	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0105	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0106	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C0107	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0108	NDC31HJ-221X	C CAPACITOR	220pF 50V J	
C0109	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0110	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C0111	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0112	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C0113	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
R0101	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0102	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0103	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0104	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0105	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0106	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0107	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0108	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0109	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0110	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0111	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0112	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J	
R0120	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0121	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0122	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
R0123	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J	
CN0001	QGB1505K1-35	CONNECTOR	B-B (1-35)	
J0001	QNZ0465-001	21P CONNECTOR	EXT-2/EXT/3	
J0002	QNZ0463-001	21P CONNECTOR	EXT-1	
K0101	NQR0389-003X	FERRITE BEADS		
K0102	NQR0389-003X	FERRITE BEADS		
K0103	NQR0389-003X	FERRITE BEADS		

PRINTED WIRING BOARD PARTS LIST [AV-28T5BK, AV-28T5SK]

MAIN P.W. BOARD ASS'Y (SJW-1912A-U2)

⚠Ref No.	Part No.	Part Name	Description	Local
IC201	CXA2089Q-X	IC		
IC602	AN5277	IC		
IC603	BD3869AF-X	IC		
IC701	TDA12020-28T5SP	IC(MCU)	(SERVICE)	
IC702	ATF16-28T5SP	IC	(SERVICE)	
IC902	AN78L09-T	IC		
Q101	2SC5397/CD/-T	TRANSISTOR		
Q201	2SC3928A/QR/-X	TRANSISTOR		
Q202	2SC3928A/QR/-X	TRANSISTOR		
Q207	UN2226-X	DIGI TRANSISTOR		
Q210	2SA1530A/QR/-X	TRANSISTOR		
Q211	UN2226-X	DIGI TRANSISTOR		
Q212	2SA1530A/QR/-X	TRANSISTOR		
Q213	UN2226-X	DIGI TRANSISTOR		
Q214	UN2226-X	DIGI TRANSISTOR		
Q215	KTA1267/YG/-T	TRANSISTOR		
Q217	KTC3199/YG/-T	TRANSISTOR		
Q218	2SC3928A/QR/-X	TRANSISTOR		
Q219	2SC3928A/QR/-X	TRANSISTOR		
Q220	2SC3928A/QR/-X	TRANSISTOR		
Q221	2SC3928A/QR/-X	TRANSISTOR		
Q301	2SA1530A/QR/-X	TRANSISTOR		
Q302	2SC3928A/QR/-X	TRANSISTOR		
Q617	2SC3928A/QR/-X	TRANSISTOR		
Q618	2SC3928A/QR/-X	TRANSISTOR		
Q620	UN2213-X	DIGI TRANSISTOR		
Q621	2SA1530A/QR/-X	TRANSISTOR		
Q622	2SC3928A/QR/-X	TRANSISTOR		
Q703	2SC3928A/QR/-X	TRANSISTOR		
Q704	2SC3928A/QR/-X	TRANSISTOR		
Q707	2SC3928A/QR/-X	TRANSISTOR		
Q708	2SC3928A/QR/-X	TRANSISTOR		
Q709	2SA562TM/Y/-T	TRANSISTOR		
Q710	2SA562TM/Y/-T	TRANSISTOR		
Q711	2SC3928A/QR/-X	TRANSISTOR		
Q712	2SA1530A/QR/-X	TRANSISTOR		
D201	MA8120/M/-X	Z DIODE		
D203	NCB21EK-104X	C CAPACITOR	0.1uF 25V K	
D204	MA8120/M/-X	Z DIODE		
D205	MA8120/M/-X	Z DIODE		
D206	MA8120/M/-X	Z DIODE		
D207	MA8120/M/-X	Z DIODE		
D208	MA8120/M/-X	Z DIODE		
D209	MA8120/M/-X	Z DIODE		
D211	MA8120/M/-X	Z DIODE		
D212	MA8120/M/-X	Z DIODE		
D213	MA8120/M/-X	Z DIODE		
D214	MA8120/M/-X	Z DIODE		
D215	MA8120/M/-X	Z DIODE		
D301	MA111-X	SI DIODE		
D302	MA111-X	SI DIODE		
D303	MA111-X	SI DIODE		
D304	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	
D607	MA111-X	SI DIODE		
D608	MA111-X	SI DIODE		
D609	MA111-X	SI DIODE		
D611	MA8330/L/-X	Z DIODE		
D613	MA8330/L/-X	Z DIODE		
D616	MA111-X	SI DIODE		
D621	MA8056/M/-X	Z DIODE		
D701	MA111-X	SI DIODE		
D702	1SS357-X	SB DIODE		
D704	MA8068/M/-X	Z DIODE		
D705	MA111-X	SI DIODE		
D706	MA111-X	SI DIODE		
D707	MA111-X	SI DIODE		
D708	MA111-X	SI DIODE		
D711	RB161L-40-X	SB DIODE		
D712	1N4003SG-T2	SI DIODE		
D713	UDZS2.0B-X	Z DIODE		
D714	UDZS2.0B-X	Z DIODE		
D981	MA111-X	SI DIODE		
D982	MA111-X	SI DIODE		
D983	1N4003SG-T2	SI DIODE		
C101	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C102	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C103	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C104	QETN1AM-108Z	E CAPACITOR	1000uF 10V M	
C107	NCB31HK-222X	C CAPACITOR	2200pF 50V K	

⚠Ref No.	Part No.	Part Name	Description	Local
C108	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C110	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C111	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C113	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C115	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C116	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C118	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
C203	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C204	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C205	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C207	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C208	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C209	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C210	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C213	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C214	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C216	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C217	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C218	NDC31HJ-390X	C CAPACITOR	39pF 50V J	
C220	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C221	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C222	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C223	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C224	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C226	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C227	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C228	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C229	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C230	QENC1EM-106Z	BP E CAPACITOR	10uF 25V M	
C231	QENC1EM-106Z	BP E CAPACITOR	10uF 25V M	
C232	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C233	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C234	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C235	QETN1CM-107Z	E CAPACITOR	100uF 16V M	
C236	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C237	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C238	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
C239	QETN1CM-477Z	E CAPACITOR	470uF 16V M	
C240	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C241	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C301	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C302	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C303	QETN1CM-227Z	E CAPACITOR	220uF 16V M	
C304	NCB31HK-103X	C CAPACITOR	0.01uF 50V K	
C305	NDC31HJ-100X	C CAPACITOR	10pF 50V J	
C306	QETN1AM-227Z	E CAPACITOR	220uF 10V M	
C617	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C619	QENC1HM-106Z	BP E CAPACITOR	10uF 50V M	
C620	QETN1HM-107Z	E CAPACITOR	100uF 50V M	
C621	QETM1VM-228	E CAPACITOR	2200uF 35V M	
C622	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	
C623	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	
C626	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	
C627	QFVF1HJ-224Z	MF CAPACITOR	0.22uF 50V J	
C628	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C630	QETN1EM-108Z	E CAPACITOR	1000uF 25V M	
C632	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C633	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C634	QETN1CM-108Z	E CAPACITOR	1000uF 16V M	
C662	NDC31HJ-391X	C CAPACITOR	390pF 50V J	
C663	NDC31HJ-391X	C CAPACITOR	390pF 50V J	
C666	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C667	NCB31HK-222X	C CAPACITOR	2200pF 50V K	
C668	NCB31AK-105X	C CAPACITOR	1uF 10V K	
C669	NCB31AK-105X	C CAPACITOR	1uF 10V K	
C670	QETN1EM-226Z	E CAPACITOR	22uF 25V M	
C671	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C672	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C673	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C674	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C675	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
C703	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C704	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C705	NCB31HK-332X	C CAPACITOR	3300pF 50V K	
C706	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C707	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C708	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C709	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C710	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C711	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
C712	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C713	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C714	NDC31HJ-470X	C CAPACITOR	47pF 50V J	
C715	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	

⚠Ref No.	Part No.	Part Name	Description Local
C716	NCB31CK-103X	C CAPACITOR	0.01uF 16V K
C717	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C718	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C719	NCB31AK-474X	C CAPACITOR	0.47uF 10V K
C720	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C721	NDC31HJ-470X	C CAPACITOR	47pF 50V J
C722	NCB31CK-103X	C CAPACITOR	0.01uF 16V K
C723	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C724	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C725	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C726	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C727	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C728	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C729	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C730	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C731	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C732	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C733	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C734	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C735	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C736	NDC31HJ-561X	C CAPACITOR	560pF 50V J
C737	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C738	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C739	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C740	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C741	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C742	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C743	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C744	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C745	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C746	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C747	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C748	QETN1HM-226Z	E CAPACITOR	22uF 50V M
C749	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C750	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C751	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C752	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C753	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C754	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C755	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C756	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C757	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J
C758	NDC31HJ-7R0X	C CAPACITOR	7pF 50V J
C759	NCB30JK-225X	C CAPACITOR	2.2uF 6.3V K
C760	NCB31HK-103X	C CAPACITOR	0.01uF 50V K
C761	NCB31HK-682X	C CAPACITOR	6800pF 50V K
C762	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C763	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C764	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M
C765	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C766	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C767	NCB31HK-223X	C CAPACITOR	0.022uF 50V K
C768	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C769	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C770	NCB31CK-473X	C CAPACITOR	0.047uF 16V K
C771	QFVF1HJ-104Z	MF CAPACITOR	0.1uF 50V J
C772	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C775	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C776	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C777	NCB31CK-224X	C CAPACITOR	0.22uF 16V K
C779	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C780	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C781	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C782	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C783	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C784	QETN1HM-106Z	E CAPACITOR	10uF 50V M
C788	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
C791	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C792	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C793	NCB31HK-102X	C CAPACITOR	1000pF 50V K
C904	QETN1CM-107Z	E CAPACITOR	100uF 16V M
C905	NCB31CK-104X	C CAPACITOR	0.1uF 16V K
C906	QETN1CM-107Z	E CAPACITOR	100uF 16V M
R101	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R102	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R103	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R104	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R105	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R106	NRSA63J-150X	MG RESISTOR	15Ω 1/16W J
R107	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R108	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R110	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R111	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J
R112	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J
R114	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R115	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R116	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R119	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R201	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R202	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R208	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R209	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R210	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R211	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R212	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R213	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R214	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R215	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R216	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R217	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R218	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R220	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R221	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R222	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R226	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R227	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R229	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R232	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R233	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R234	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R235	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R236	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R237	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R238	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R239	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R240	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R241	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R242	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R243	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R244	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R245	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R246	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R247	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R249	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R251	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R253	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R255	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R258	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R259	NRSA63J-823X	MG RESISTOR	82kΩ 1/16W J
R260	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R261	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R262	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R263	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R264	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R265	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R266	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R267	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R268	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R269	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R270	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R271	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R272	NRSA63J-333X	MG RESISTOR	33kΩ 1/16W J
R273	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R274	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R275	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R276	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R277	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J
R279	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R280	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R281	NRSA63J-681X	MG RESISTOR	680Ω 1/16W J
R282	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R283	QRG01GJ-101	OMF RESISTOR	100Ω 1W J
R284	QRK126J-181X	UNF C RESISTOR	180Ω 1/2W J
R285	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R286	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R287	QRK126J-151X	UNF C RESISTOR	150Ω 1/2W J
R288	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J
R289	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R290	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R291	NRSA63J-680X	MG RESISTOR	68Ω 1/16W J
R292	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R293	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R295	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R296	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R297	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R298	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R299	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R300	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R301	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R302	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R303	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R304	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R305	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J

⚠Ref No.	Part No.	Part Name	Description Local
R306	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R307	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J
R308	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R313	NRSA63J-470X	MG RESISTOR	47Ω 1/16W J
R314	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R316	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R317	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R318	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R319	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R629	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R631	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R633	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R634	QRK126J-2R2X	UNF C RESISTOR	2.2Ω 1/2W J
R636	QRK126J-2R2X	UNF C RESISTOR	2.2Ω 1/2W J
R641	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R642	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R646	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R647	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R648	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R649	NRSA63J-471X	MG RESISTOR	470Ω 1/16W J
R650	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R653	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R663	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J
R664	NRSA63J-183X	MG RESISTOR	18kΩ 1/16W J
R669	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R670	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R671	QRE121J-562Y	C RESISTOR	5.6kΩ 1/2W J
R672	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R673	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R674	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R675	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R676	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R685	NRSA63J-394X	MG RESISTOR	390kΩ 1/16W J
R686	NRSA63J-394X	MG RESISTOR	390kΩ 1/16W J
R687	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R688	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J
R689	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R690	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R701	NRSA63J-391X	MG RESISTOR	390Ω 1/16W J
R709	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R710	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R711	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R712	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R713	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J
R714	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J
R715	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R717	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R719	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R720	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R721	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R724	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R725	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R726	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R727	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R728	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R729	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R730	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R731	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R733	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R734	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R735	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R736	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R737	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
R738	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R739	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
R741	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R742	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R743	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R744	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J
R745	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R746	NRSA63J-123X	MG RESISTOR	12kΩ 1/16W J
R747	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J
R749	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R750	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R751	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R752	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R753	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R754	NRSA63J-273X	MG RESISTOR	27kΩ 1/16W J
R757	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R758	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R760	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
R763	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R764	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R765	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R766	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J
R767	QRK126J-3R9X	UNF C RESISTOR	3.9Ω 1/2W J
R768	QRK126J-3R9X	UNF C RESISTOR	3.9Ω 1/2W J
R769	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R770	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R771	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
R772	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R773	NRSA63J-222X	MG RESISTOR	2.2kΩ 1/16W J
R774	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J
R776	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R777	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
R778	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J
R779	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
R780	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J
R782	NDC31HJ-470X	C CAPACITOR	47pF 50V J
R784	NDC31HJ-470X	C CAPACITOR	47pF 50V J
R786	NRSA63J-220X	MG RESISTOR	22Ω 1/16W J
R787	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J
R788	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J
L101	QQL244K-100Z	PEAKING COIL	10uH K
L102	QQL244K-270Z	PEAKING COIL	27uH K
L103	QQL244K-4R7Z	PEAKING COIL	4.7uH K
L104	QQL244K-1R5Z	COIL	1.5uH K
L701	NQR0199-004X	FERRITE BEADS	
L702	NQR0199-001X	FERRITE BEADS	
L703	NQR0199-004X	FERRITE BEADS	
L704	NQR0199-004X	FERRITE BEADS	
L705	NQR0199-004X	FERRITE BEADS	
L706	NQR0199-004X	FERRITE BEADS	
L707	NQR0199-004X	FERRITE BEADS	
L708	NQR0199-004X	FERRITE BEADS	
L709	NQR0199-004X	FERRITE BEADS	
L710	NQR0199-004X	FERRITE BEADS	
L711	NQR0199-004X	FERRITE BEADS	
L712	NQR0199-004X	FERRITE BEADS	
L713	NQR0199-004X	FERRITE BEADS	
L714	NQR0199-004X	FERRITE BEADS	
L715	NQR0199-004X	FERRITE BEADS	
L716	NQR0199-004X	FERRITE BEADS	
L717	NQR0199-004X	FERRITE BEADS	
L718	NQR0199-004X	FERRITE BEADS	
CN001	QGB1505J1-35	CONNECTOR	B-B (1-35)
CN003	QGB1506L1-16	CONNECTOR	B-B (1-16)
CN004	QGB1506L1-16	CONNECTOR	B-B (1-16)
CN00B	QJB003-042424	SIN ID C-B WIRE	
CN00K	QJK002-034023	SIN CR C-B WIRE	
CN00S	QJK002-053620	SIN CR C-B WIRE	
SF101	QAX0531-001	SAW FILTER	
SF102	QAX0795-001	SAW FILTER	
TU101	QAU0344-002	TUNER	
X701	QAX0799-001Z	CRYSTAL	

POWER & DEF P.W. BOARD ASS'Y (SJW-2012A-S2)

REFER TO PARTS LIST IN PAGE 3-7 FOR THIS P.W. BOARD.

CRT SOCKET P.W. BOARD ASS'Y (SJW-3012A-U2)

REFER TO PARTS LIST IN PAGE 3-9 FOR THIS P.W. BOARD.

FRONT CONTROL P.W. BOARD ASS'Y (SJW-8011A-U2)

REFER TO PARTS LIST IN PAGE 3-9 FOR THIS P.W. BOARD.

SIDE CONTROL P.W. BOARD ASS'Y (SJW-8111A-U2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

AV JACK P.W. BOARD ASS'Y (SJW0J011A-U2)

REFER TO PARTS LIST IN PAGE 3-10 FOR THIS P.W. BOARD.

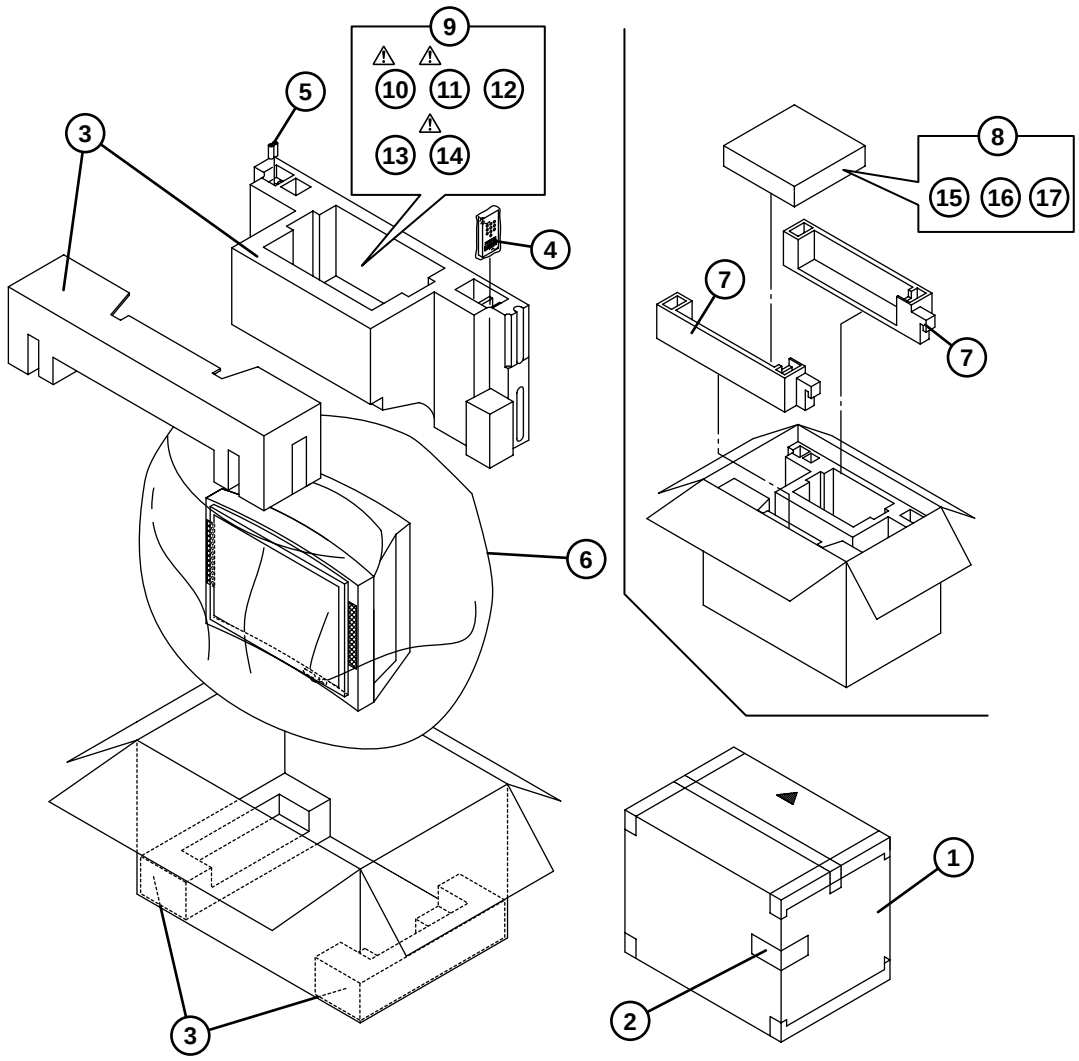
REMOTE CONTROL UNIT PARTS LIST (RM-C1502)

⚠	Ref.No.	Part No.	Part Name	Description	Local
		2AK061080	BATTERY COVER		AV-28T5SK,AV-28T5SP,AV-28T5SR

REMOTE CONTROL UNIT PARTS LIST (RM-C1502B)

⚠	Ref.No.	Part No.	Part Name	Description	Local
		2AK044990	BATTERY COVER		AV-28T5BK,AV-28T5BR

PACKING



PACKING PARTS LIST

⚠	Ref.No.	Part No.	Part Name	Description	Local
	1	GA10002-003A-U	PACKING CASE		AV-28T5SP
	1	GA10002-001A-U	PACKING CASE		AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR
	2	GA10001-008A-U	EURO LABEL		AV-28T5BK
	2	GA10001-006A-U	EURO LABEL		AV-28T5BR
	2	GA10001-007A-U	EURO LABEL		AV-28T5SK
	2	GA10001-004A-U	EURO LABEL		AV-28T5SP
	2	GA10001-005A-U	EURO LABEL		AV-28T5SR
	3	LC11859-001C-U	CUSHION ASSY	4pcs in 1set	
	4	RM-C1502B-1C	REMOCON		AV-28T5BK,AV-28T5BR
	4	RM-C1502-1C	REMOCON		AV-28T5SK,AV-28T5SP,AV-28T5SR
	5	----------	BATTERY	R6P/AA(x2)	
	6	AEM1078-001A-U	POLY BAG		
	7	GA10007-001A-U	STAND CUSHION	2pcs in 1set	AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR
	8	GA30016-001A-U	PACKING CASE	For STAND	AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR
	9	AEM3021-003B-E	DOCUMENT BAGS		AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR
⚠	10	LCT1795-001A-U	INST BOOK	English/French/German/Italian/Dutch/Portuguese/Spanish	AV-28T5SP
⚠	10	LCT1794-001A-U	INST BOOK	English	AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR
⚠	11	LCT1796-001A-U	INST BOOK	Danish/Finn/Norwegian/Swedish	AV-28T5SP
	12	----------	WARRANTY CARD	BT-54026-1E	AV-28T5BK
	12	----------	WARRANTY CARD	BT-54023-1E	AV-28T5BR,AV-28T5SK,AV-28T5SP,AV-28T5SR
	13	AEM3148-001B-U	REGISTRATION CARD		AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR
⚠	14	QQR0675-001	CORE FILTER		AV-28T5BR,AV-28T5SP,AV-28T5SR
	15	GA30014-001A-U	FIXING KIT		AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR
	16	GA40022-002A-U	SHELF SUPPORT	Brack/4pcs in 1set	AV-28T5BK,AV-28T5BR
	16	GA40022-001A-U	SHELF SUPPORT	Silver/4pcs in 1set	AV-28T5SK,AV-28T5SR
	17	GA30015-001A-U	ASSEMBLY INSTRUCTIONS	For STAND	AV-28T5BK,AV-28T5BR,AV-28T5SK,AV-28T5SR